



# **2023**

# **OPA RACING**

# **Rule Book**

## **Offshore Rules & Bylaws**

# OPA Racing Offshore Racing Rules

These rules have been promulgated by OPA Racing and govern offshore racing under its jurisdiction. The racing rules herein are to provide for the orderly conduct of offshore racing events and to set forth minimum acceptable requirements for them. By participating in these events, involved persons agree to comply with these rules, and to have accepted their priority and suitability. No express or implied warranty of safety shall result from publication of, or compliance with these rules and/or regulation. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants, spectators, volunteers or others. These rules are effective as of the date of printing and shall be in full force. An amendment to the rules can be made at any time without notification. It is the responsibility of the race member to be current and up to date with the current rules. In the case of an amendment to the rules, a new version of the Rule Book will be uploaded and replace the prior version which is then superseded by a new edition (Version # and date will be included on the amended rule book). All matters regarding OPA Racing should be directed to the offices listed below:

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## **OPA Race Officials**

PRESIDENT - Roland Smith (Smitty)

VICE PRESIDENT – Nick Smith

GENERAL MANAGER- Dee Ungarten

REFEREE – Val Fiorillo, Jim Jackson

ASSISTANT REFEREE – Anthony Smith, Nick Smith

CHIEF REGISTRAR/CHIEF SCORER - Dee Ungarten

RACE CONTROL OFFICIAL - Stu Slotnick

TECHNICAL INSPECTOR(S) – Greg Kaltnecker, Tom Riccard

SAFETY INSPECTOR(S) –Jim Jackson, Val Fiorillo

GPS TECH – Cody Sisk

MEDICAL DIRECTOR – Barbara Wanenmacher

WATER OPERATIONS – Jim Jackson

IF THIS RULEBOOK DOES NOT SPECIFICALLY ALLOW SOMETHING,  
THEN YOU SHOULD ASSUME THAT IT IS ILLEGAL!  
PLEASE HEED THIS WARNING

## **Welcome**

OPA Racing would like to welcome you to offshore racing. Our mission is to have fun, enjoy each other's company, travel to some great race sites and race our boats. It's a simple combination of fun, food and racing that our racers seem to enjoy. OPA offers 15 classes for the 2023 season. However, any class of offshore boats are welcome and can race under their own set of rules as long as there are five boats competing in that class. Otherwise, any boat can fit into one of the speed bracket classes.

Performance Class racing is an inexpensive way to come out and race your boat. In Performance Class Racing, there are no strict engine specifications to follow as long as your boat can run 60 MPH. There are currently 7 brackets in the Performance Classes, 6 Spec classes (Super Cat, Super Stock, Factory Stock, Vee Extreme, Stock Vee, Modified Vee,) and 1 Open class (Unlimited). (Read the respective rules sections to see how a boat qualifies in each class.)

We thrive on providing highly competitive entertainment to race fans wherever we go. The OPA President will place boats in the appropriate class based upon an engine rev limiter, propeller size and pitch calculation. This insures that boats of similar speed race against each other and every racer has a chance to win on any given day.

To the extent that any conflict may exist between racing rules (general & technical) outlined within the OPA Racing Rule Book and another sanctions rule book as joint event, the rules for OPA Racing shall govern at an OPA Racing insured event.

# OPA RACING ORGANIZATION RULES

## GENERAL COMPETITION SAFETY RULES

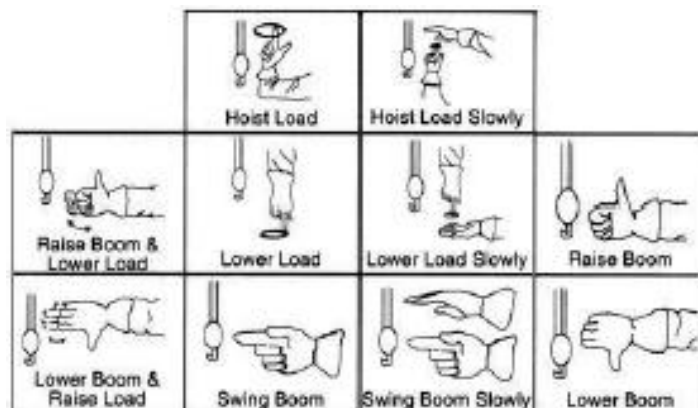
1. At racing venues, all racers and boats competing therein shall be under the control and direction of the OPA officials as carried forth by the OPA President in conjunction with the OPA Racing Director. All matters shall be subject to their approval and control.
2. Members of the race committee including all officials may be exempt from any decision in which they may have a direct or related interest.
3. No member of OPA shall act as an official within a class in which he competes.
4. OPA may refuse any entry that deems detrimental to the professional direction of the sport.
5. The OPA Rule book covers the 14 racing classes; however, all offshore classes of boats are welcome provided they have five boats registered in the class.

## RACE SAFETY ISSUES

1. The starting line must be of sufficient length and width to permit all boats to start abreast without interference.
2. No contestant shall participate in a race, nor shall any official serve in any capacity after having consumed alcohol or any controlled substances.
3. The race committee shall provide a minimum of:
  - The Association producing/promoting the race needs to have a Race Medical Director. This local contact should be familiar with local laws and have contact with the AHJ (Authorities Having Jurisdiction) with regard to Pre-hospital Emergency Services.
  - A minimum of one (1) properly staffed and equipped State licensed advanced life support (A.L.S.) ambulance which shall be available for transporting injured OPA, racer and or crew to a pre-designated or appropriate hospital trauma center and one(1) backup on call. No land or air transport shall take place prior to assessment or clearance by the OPA Medical and Safety staff present, local race Medical Director, or licensed paramedic/emergency medical technician. All pre-hospital care shall comply with project Medical Director protocols and/or State Law.
  - The number of Medical Rescue boats required will be determined by the size and shape of the race course. A Minimum of four (4) Medical Rescue boats equipped and staffed with the approved type and number of personnel as pre-approved by the OPA Medical and Safety staff, in concert with the local race Medical Director. Medical Rescue boats shall be able to accommodate, in addition to the captain of the vessel and 1st mate, 2 medical personnel, 2 rescue divers, and 1 patient on a backboard (figure approx. 6-8 ft horizontally). Medical Rescue boats shall be utilized solely for race rescue operations (no towing, patrolling, etc.), and be equipped as recommended by the OPA. Medical Rescue boats shall be situated to have a two minute response time anywhere on the course based on speed and type of rescue craft.
  - Experienced and certified underwater dive/rescue personnel, appropriately equipped, will be made available for course placement at the discretion of the OPA Racing Director and OPA Medical Director. The number of divers recommended is at least two (2) per Medical Rescue boat. All divers shall be equipped with a knife and should have available on each boat's extrication equipment, such as pry bars and hammers.

- Ten (10) patrol boats are a minimum for course containment during the race. Patrol boats shall be located around the perimeter of the course such that they have visual contact with the course and the Patrol boat on either side of them. Only authorized personnel shall operate these vessels and under no circumstances shall alcohol or other substance be consumed before or during the race.
  - A minimum of one (1) medical rescue helicopter as specified by OPA Racing shall be provided for immediate response by/from the OPA Medical Rescue Staff. This aircraft must have direct communication on aircraft frequency from the pilot seat as well as intercom to all occupants. A radio capable of maintaining contact with the Race Control Official/local Medical Director will be provided to the personnel staffing the aircraft. The aircraft shall be staffed only by personnel approved by the OPA Medical Director.
4. Hot Pits: Defined as an adequate area surrounding the cranes, fuel storage, and launching ramp, these areas should be posted and considered non-smoking and no alcohol consumption areas. Only officials, owners and team members will be allowed in these areas. All personnel with a race team that do not have proper wristband identification, that are found in the hot pit area, will result in a financial penalty to the boat owner of \$200.00 for the first offense. For each time thereafter, if a crew member of the already fined team has personnel in the crane area, the boat owner will be fined \$200.00 and a one (1) minute penalty per person or instance.
  5. Wet Pits: Defined as docking areas secured by the race committee, as crew working areas and available by controlled admission to the general public. All personnel with a race team must sign the Waiver of Liability to be permitted in the wet pits.
  6. Dry Pits: Defined as areas where race rigs are on display to the public prior to launch. Riding on race boats, while being lifted by a crane is prohibited.
  7. All described areas require a signature of insurance waiver. The sale of alcoholic beverages within any of the described areas is strictly prohibited. Conduct within these areas is under the scrutiny of OPA officials. Breach of the above rules may disqualify an OPA member.
  8. There are basic crane hand signals used to communicate with the crane operator that must be used by race and crew members allowed in the crane area.

## Basic Crane Signals



## GENERAL COMPETITION GUIDELINES

1. In order to compete in an OPA event, all riding crew, ground crew, and the owner of the boat to be raced, must be a member of OPA in good standing and must meet all competition requirements. Members who are not registered will not be permitted in restricted areas.

2. Race entries are not official until all entry data is completed including the signed insurance Waiver and Liability, and all fees are paid in full to OPA Racing prior to close of registration the day preceding the official race day.
3. All competitors on the course are required to separate the duties within the boat. A driver may not throttle, and a throttleman may not drive. At all times during competition the drivers main focus is to navigate the course, and his or her competitors.
4. A minimum age for riding crew is established at age 16. For those participants under the age of 18, must have a parent or guardian present at the race site and sign a Waiver and Liability form on behalf of the minor.
5. Persons under the age of 18 must have written authority signed by either Parent or Guardian in addition to the Waiver and Liability form.
6. Racing crew is established at a minimum of two (2) persons and restricted to a maximum of four (4).
7. All riding crewmembers must remain within the boat for the entire period of the race in order to be eligible for an official start and finish status.
8. Anytime a race boat is on plane, while testing or racing, competitors must wear complete approved personal safety equipment including helmet and life jackets. Violation of this rule will result in a three minute penalty. The owner of the boat is responsible for the actions of his crew.
9. THE RESPONSIBILITY FOR A TEAM'S DECISION TO PARTICIPATE IN A RACE OR TO CONTINUE RACING IS THEIRS ALONE.

## **PERSONAL SAFETY EQUIPMENT**

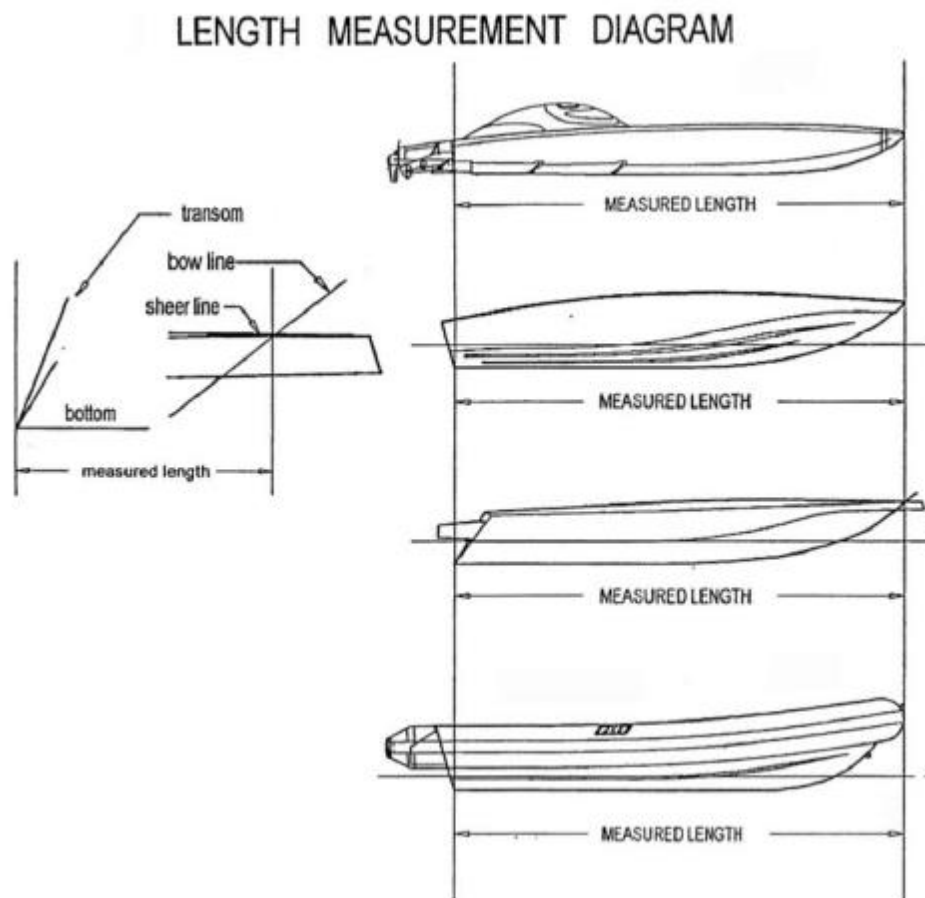
1. A combination helmet and impact resistant floatation jacket, at least 80% orange in color.
2. In the unrestrained cockpit: Each riding crew member must wear a full sixty pound (60lb) jacket type personal flotation device with skid collar and frontal flotation material, sufficient to keep an unconscious person afloat with his airway open. The jacket must be 80% orange or yellow in color. This jacket must be worn at all times when the craft is on plane. Life jackets or PFD's shall be designed for racing with leg straps or thigh skirts, a minimum of 1/4" thick of impact protection material covering the back and sides. Safety straps should be placed over any zippered seam. All personal safety equipment must be properly fastened during the entire period of racing.
3. In the restrained cockpit: It is recommended that all personal flotation devices worn meet or exceed current published standards regarding impact material. The following inflatable flotation is strongly encouraged: A five pound (5 lb) maximum natural buoyancy personal flotation device with additional total fifty pound (50 lb) personally activated incremental flotation is highly recommended. This PFD must inflate to display 70% visible yellow or orange and support the head and neck above the waterline so as to maintain a patent airway. This jacket must be designed so as not to hinder restraint harness release.
4. Cool Suits may contain any proven safe fluid or gas cooling agent other than Freon.
5. Cervical support devices may be worn and are subject to approval of the medical director. FOR ADDITIONAL INFORMATION CONTACT THE OPA MEDICAL DIRECTOR.
6. The minimum requirement for all Race Classes is a Life Vest with nylon over closed cell foam. A competition 4 buckle vest, USCG approved type III. Top of vest must be 80% yellow, orange or red.
7. A Snell 75, 80, 85 or 90 standards helmet. The Snell label should be affixed to the helmet. Helmets may not be more than ten (10) years old from the manufacturing date. Teams with enclosed cockpits may use helmets other than Snell standards, but must be approved by the OPA Official.

Face shields and face guards are permitted if they permit ready access to the entire face for rescue purposes. The shields must be shatter proof. All helmets must be 80% orange or yellow in color.

- a. For more information in reference Snell standards, visit: <https://www.smf.org/>
8. Eye protection is mandatory for all racers in open cockpits. This protection must be constructed of shatterproof material. Eyeglasses are not to be accepted as approved protection.
9. All participants must wear closed foot protection while working in the pits and while racing.
10. All racing participants must have an annual CDL, FAA physical, or a doctor's prescription pad note indicating it is ok for him/her to race. If at any time during the race season, the participants CDL or Physical expires, the participant is required to obtain a new physical. If the participant fails to obtain a new physical, the race will not be permitted to partake in any races going forward.

## BOAT MEASUREMENT

1. To Measure a boat for a class, Plum Bobs should be dropped from the tip of the bow and from the furthest point of a running surface from the bow.



## RESTRAINED COMPETITORS

1. It is mandatory for these racers to complete a "Self Extrication Course" and "Swim Test" on an annual basis.
  - a. Annual Testing is only good for the current race season and cannot not be carried over to the next race season, nor from a previous race season. This means your certification is only good per calendar year.

- b. Course/Test MUST be administered by OPA Racing
  - c. Certifications from other race organizations/sanctions will not be accepted.
  - d. Cost of “Self Extraction Course” is \$50.00 per person. This amount is to be paid for at the pool.
- 2. All Racing members must be certified before Testing or Racing at any OPA event.
- 3. All Racing Participants is and person of the team that will be in the cockpit of the boat on the water during the course of race event.
- 4. It is recommended that racers complete a certified scuba diving course.
- 5. Must have a five point harness with quick release buckle.
- 6. Must have on board SCUBA system with enough air to allow all riding crew members to breathe underwater for 30 minutes at a depth of 30 feet.
- 7. The OPA President or OPA Official may prohibit the use of any equipment they deem unsafe.
- 8. The air system must have enough air hose between the SCUBA regulator and the SCUBA Bottle to reach to a position parallel to the bottom of the keel of the boat.
- 9. It is not recommended that spare/pony/leg air bottles be relied upon to make it to the surface after leaving the cockpit. They should be used only as a backup in case of an air system mishap.

### **UNRESTRAINED COMPETITORS**

- 1. All Unrestrained Competitors Must complete an Annual Swim Test.
  - a. An approved PFD & helmet will be provided for you at the pool.
- 2. It is mandatory for these racers to complete a “Swim Test” on an annual basis.
  - a. Annual Testing is only good for the current race season and cannot not be carried over to the next race season, nor from a previous race season. This means your certification is only good per calendar year.
- 3. OPA Racing ONLY accepts Certifications
  - a. Administered by OPA Racing at an OPA Racing event
  - b. Administered by a Conducting Club or Group of OPA at a private session and is only valid for the calendar year of issuance.
- 4. All Racing members should be certified before Testing or Racing at an OPA event. Contact the Chief Registrar for available testing sessions.

### **UNIFORMS / DECALS / BANNER PLACEMENT**

- 1. Racing uniform will consist of a team shirt and slacks that simulates a jumpsuit or uniform to be worn on race day & at the awards ceremony.
- 2. The dress uniform should consist of a dress or Team shirt, racing jacket and dress pants. This uniform will be worn at the first drivers meeting and at all Racer event activities.
- 3. The casual uniform should consist of a race shirt, shorts or long pants. This uniform should be worn by riding crew and pit crew on off days.
- 4. It is a mandatory for the OPA logo to be on all team uniforms/shirts.
- 5. OPA decals must be affixed to hull on both sides of boat near cockpit.
- 6. Only the OPA decals may be on the hull when participating in any and all OPA sanctioned events.
- 7. All other organizational decals MUST be removed from the hull in order to participate in an OPA sanctioned event.
- 8. Failure to comply may result in non-appearance in media coverage, purse monies not paid to entrant, a penalty of up to 2 minutes and/or fined up to \$1000.00.



## **DISPLAY FLAGS**

1. It is required that each team display the American Flag in their dry pit stall
2. It is required that each team display the OPA Racing flag in their dry pit stall
3. If your origin or citizenship is outside of the United States you may display that flag. You must follow proper flag protocol in which the American Flag is displayed prominent to all other flags. (Nationality is different than origin/citizenship.)

## **TESTING GUIDELINES**

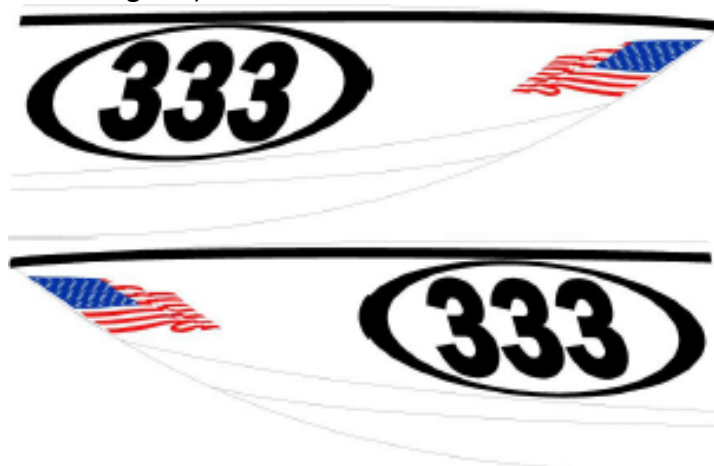
1. A designated test area for non-race days shall be established and announced at the first drivers meeting. This test area will have one (1) medical boat. This boat will be on station during the allotted test time. This area is approximately one (1) square statute mile in an area that is not heavily populated with public marine access. It is mandatory for boats going out to test to call race control, notifying them that you are “going out to test” and give the number of crew on board the boat, before and after you test.
2. All unregistered race boats must get testing permits from the local Marine Police or Coast Guard if required by law.
3. NO BOAT IS ALLOWED TO TEST PRIOR TO REGISTERING FOR THE RACE. All race members MUST sign the Waiver of Liability before entering the boat and crane area. Crew members who are not a registered OPA member will NOT be permitted in the crane area.
4. A boat is required to go through an inspection process prior to testing and racing.

## **EQUIPMENT SAFETY GUIDELINES**

1. Fitted windscreens or windshields shall be well supported and all exposed edges must be adequately padded. The use of glass is prohibited. Wind deflectors of any type must be shatterproof.
2. Race boats operating with multiple propulsion systems must utilize an external tie bar to prevent driveline collision.
3. All boats must have rev limiters.
4. A minimum of two (2) bilge pumps are mandatory, one (1) of which should be manually operated. Cat hulls must install a bilge pump per hull with a manual backup. One pump must be installed to operate automatically and independent of the battery cutoff switches so fluids levels cannot raise undetected.
5. All boats must have properly engineered Fire Suppression system. A minimum of one Coast Guard certified fire extinguisher per engine compartment. Extinguisher must be sized according to Coast Guard regulations.
6. Interlocking connections pertaining to helmets and their receptive intercom systems must be able to disconnect easily. Rigid or locking connections of any type are prohibited. Inflexible microphone booms are prohibited. All installations are subject to approval by OPA inspectors.
7. A Marine VHF Ship to Shore Radio must be maintained on the boat in a secured location. The equipment must have channels 6, 7A, 79 and/or any other channel, which may be designated by OPA for proper race communications.
8. A protective shield must encompass all connecting output shafts and couplings. The protection shall be capable of continuing the shafts and couplings to prevent damage to the hull skin, fuel tanks, or any other component.
9. A permanently installed towing eye/ring must be installed on the stem of the boat.
10. All boats using the crane must have a single point lifting system.

11. In non-restrained cockpits, individual ignitions kill switches for connection to each riding crewmember are mandatory. Kill switch cords must not exceed four (4) feet. Spare kill switch caps are the only permitted method of emergency override and are mandatory. All competitors must be connected to an individual kill switch while the boat is on plane. In a restrained cockpit a means of emergency engine shutoff must be accessible to all riding crewmembers.
12. All offshore classes require mandatory racing bolsters or racing seats. Standard marine production seats are prohibited. Approval shall be based on lateral support and structure not padding.
13. Cleats and other deck hardware must be protected by padding or recessed. Spare propellers, installed on the hull, shall be covered by an inflexible protective shield.
14. Propellers may NOT be mounted on prop shafts except for prior to launching. When the prop(s) are mounted, a protective covering must be in place at all times.
15. Holes in firewalls are prohibited, front or back of cockpit. Holes in deck must have a flame trap if the hole is one (1) foot or less from the crew.
16. Inside hatch covers should be painted yellow for visibility. Hatch covers should be opened at all times when subject to search and rescue.
17. American flags are required on hulls. The flags must be painted or in decal form. American Flag must be a minimum size of 9"x12". Recommended placement of the American Flags is bow forward and displayed on each hull side.

(see below diagram)



18. It is recommended that handles or grab rails be installed on the top portion of the transom and rear, to facilitate emergency boarding.
19. A nonskid material is also highly recommended encompassing the immediate deck surface surrounding the cockpit. The surface deck area, immediately behind the cockpit toward the transom, shall be open or covered by solid structure able to support 300 pounds of weight.
20. Fuel Cells are highly recommended for the storage of fuel.
21. Safety equipment is required for all OPA classes and shall consist of the following:
  - a. Two (2) U.S. Coast Guard approved orange smoke flares.
  - b. Two (2) U.S. Coast Guard approved fire extinguishers with protective metal pull type rings. Each unit shall be installed in a highly accessible area from the helm position. These units must be annually inspected and tagged accordingly by a fire protection equipment company.
  - c. A suitable towline (100' Minimum length). Tow line will double as an anchor line
  - d. Anchor

- i. Acceptable Styles: Delta, Fluke, Spade, Claw, Plow
  - ii. Unacceptable Styles: Mushroom, Grapnel
- e. First Aid Kit
- f. Horn
- g. All safety equipment should be kept sealed, in a container that is easily opened. The contents should be inspected prior to each race to insure the usable quality of each product. Safety equipment must be stowed in a readily accessible area of the boat, preferably in a deck level compartment within close proximity of the cockpit.

## **REFEREE**

1. The OPA President shall appoint a Referee. In the event that the Referee is not present, the OPA President shall take the place of the Referee. Decisions made by the Referee may be appealed to the OPA President in writing within one hour of the completion of the race. The referee shall attend all drivers meetings and shall answer all questions relative to the OPA Rule Book. In racing events where records are established, the referee, or OPA race president must ascertain the presence and performance of competent officials, related equipment, and course layout.
2. Class assignment - A Referee can determine a particular boat's class prior to registration. The OPA President makes the final ruling as to class placement. The Referee will use the following method to determine the correct class:
  - Mathematical formula widely used to tell given boats capable top speed
  - Inspector/Official may request to run the boat with the boat owner.
  - Prior knowledge of boats speed

## **RACE CONTROL**

1. The area designated as "Race Control" is only accessible to OPA officials, local officials and Race site committee members.
2. Team members, including owners, are NOT permitted in this restricted area.
3. Media & photographers are NOT permitted in "Race Control" unless solely invited by an OPA official.
4. The general public does NOT have access to "Race Control"

## **RULE CHANGES & INTERPRETATION AT RACE SITE**

1. When a rule is not clear the official interpretation shall come from the Chief Scorer or OPA President. OPA has the right to change these rules at any time it deems necessary.
2. Rule changes may be necessary occasionally to facilitate competitive racing and safety through the introduction of improved products. Prior to any modifications the technical committee shall consult with each affected class. Rules should be maintained to insure class stability.

## **INSPECTORS**

1. The OPA President shall appoint a Chief Inspector. The inspector's responsibility is to qualify all racing equipment as they pertain to class and safety rules.
2. Inspectors do not interpret the rules; they simply enforce the OPA racing rules, spirit, and intent.

## **RACE BOAT INSPECTIONS**

1. All race boats are subject to inspection by an OPA certified inspector at each race.

2. An entry that does not complete its inspection requirements on time (refer to Racer Packet for times) will not be permitted to test and or race.
3. The inspector shall review each entry for full compliance with all aspects of the OPA Rule Book. The burden of proof for equipment compliance lies with the boat owner.
4. In the event an entry does not comply with the rules or specifications as contained within the OPA Rule Book the owner shall be so advised and given the opportunity to comply.
5. If an entrants inspection does not live up to the spirit or intent of the OPA rules, the referee in concert with the OPA President may refuse to allow the craft to compete.
6. The Referee or OPA President may instruct the inspectors to inspect an entry at any time. Awards shall not be awarded until the compliance of equipment is confirmed by the Chief Inspector.
7. Any entry that refuses an inspection will be disqualified and may face further disciplinary action.
8. At the discretion of the equipment owner, an open or closed inspection may be performed. In the event of a protest, the only information released will be whether the equipment is in compliance.
9. Inspectors do not have the authority to waive any aspect of the OPA Rule Book.
10. All boats must have installed MSD ignition box # 8738 or any other RPM limiting device approved by OPA.
11. Once a boat passes pre-race inspection, the MSD limiter and engine hatch will be sealed by the OPA inspector. Any boat that breaks the seal prior to post race inspection will receive last place and last place points. Safety Inspections failures MUST be fixed by the next race.

## **RACE COURSE INFRACTIONS**

1. Racers may not protest another racer with regard to the proper execution of the racecourse. Judgments concerning the racecourse are decided from the input provided by racecourse officials, OPA television footage if available, the Referees, Chief Scorer and Race Director.
2. Should an incident occur, the race may continue and the remaining boats should continue to race with caution around the incident. All race boats need to stay at least 150 feet away from the incident.
  - Examples of incidents: Boat spinout, Collision but no hull damage.
3. Should an accident occur, the race will be RED Flagged. The means that the race has stopped and all boats MUST immediately return to the milling area. OPA officials will determine if there will be a restart of the race. Any boat that continues to race during the “Red Caution” will be immediately disqualified, receive zero points and can receive a fine up to \$2500.00.
  - Examples of accidents: Capsized Boat, Racer ejected, Collision involving considerable damage, any time a diver is deployed by race control. ONLY Race Control can issue a RED FLAG situation.
4. All competitors must report on 78A directly to race control with an “Out of Race” call if they become disabled and can no longer continue.
5. All injuries incurred at a race venue must be reported to the medical and safety director on the same day as their occurrence to be eligible for OPA insurance coverage.
6. Any racing competitor involved in an incident where any member of the team has been ejected, or for the canopied boat, ends up leaving through the escape hatch or through the submerged main hatch must accept transport to shore and be evaluated by the on-site local medical personnel. If in their opinion, additional care is necessary, the competitor may not refuse.

7. Any racing competitor involved in an accident where an injury was most likely to have occurred but continues to race (i.e. a spin out without ejection) must submit to an evaluation by on-site local medical personnel at the conclusion of their race.
8. All racing competitors that are required to be evaluated by on-site local medical personnel must submit a written report from said personnel to the OPA Medical Director before being allowed to compete in a future OPA sanctioned event.
9. No racing competitor that required additional on-site or off-site medical treatment will be permitted to race after an accident until a Release from their doctor/hospital is submitted to an OPA Official.
10. All racing competitors, once the race has started, must wear their complete approved personal safety equipment including helmet and life jackets until such time as the boat has been removed from the race course (i.e. left the race course and returned to the pits, towed to the center or outside of the course, etc.), or the race has ended.
11. If a race boat misses a course marker (Inside of a turn buoy or outside the chute markers), the boat may continue the race. You may NOT circle back and retake the course marking. A 1 minute penalty will be assessed. If you miss the marker, resulting in a negative impact to another team's race, your will be disqualified.
12. Hitting a buoy – In the event that a buoy is hit by a boat there will be no penalty unless the buoy is dislodged or damage. In the event that the buoy is damaged or dislodged, a one-lap penalty will be issued and a maximum fine of \$500 may be imposed by OPA. (This is at the discretion of an OPA official.)
13. Offshore emergency hand signals will prevail as published and shall strictly be adhered to.

#### OFFSHORE EMERGENCY HAND SIGNALS



14. In the event that a race team incurs multiple race course infractions, zero points will be awarded.
15. In the event a boat jumps the start and/or slingshots the start a minimum of a 1-minute penalty will be awarded not to exceed 2-minutes.
  - If in the event OPA decides to do a restart, the boat(s) the causing the restart will move to the outside lane.
16. In the event a boat passes the Pace Boat at ANY time on the race course (includes parade lap) a minimum of a 1-minute penalty will be awarded not to exceed 2-minutes and will be given a \$500.00 fine.
17. In the event a boat starts in the wrong lane a minimum of a 1-minute penalty will be awarded not to exceed 2-minutes.

18. In the event a boat does NOT maintain their lane going through the 1st turn, a minimum of a 1-minute penalty will be awarded not to exceed 2-minutes. (Example: Boat in Lane 1 goes wide forcing a domino effect to other boats.) A Second Offence will result in disqualification.
19. Failure to maintain your lane in turn one, will result in disqualification, a second offense could mean barring from competition for the remainder of said year, or following year. (Example 1: Boat A has a poll position of Lane 4, but takes the Turn in Lane 1). (Example 2: Boat has poll position of Lane 2 going into the turn, but cuts/dives under Boat B and comes out of the Turn in Lane 1.)
20. Contact with boats both in competition and in support of the event, will result in immediate disqualification, pending review by OPA officials for intent.
21. Crossing the race course
  - Boats are NOT permitted to cross the race course during the race unless cleared by Race Control. You must call in to race control and ask permission to cross the course from the infield to leave the course.
  - A green flag will wave from the Start/Finish boat to signal race teams that course is clear to be crossed at the end of a race.
  - If at any time a boat leaves the infield of the race course without either permission from Race Control or the Green Flag Signal from the Start/Finish Boat, they will be disqualified and receive not points for the event.
  - At NO time is a boat permitted to travel the opposite direction on the race course on a HOT COURSE
22. If in the event there is a blatant disregard to safety rules, navigational rules, etc, the boat may be Black Flagged and MUST leave the course immediately. No points will be awards. A suspension of at least one race will be awarded. Depending on the severity of the infraction same team may be suspend from the remainder of the year, up to and not excluding races in the following season (depending on when the infraction occurred during the season).

\*Note: Safety Rules are not protestable. Competitors may not protest other competitors with regards to non-compliance with OPA Racing General Safety Rules.

## SAFETY FLAGS



## PROTESTS – GENERAL

1. Racers have the right to protest any penalty that the Referee levied against them. The protest must be in writing and given to the OPA President within one hour of the completion of the race.



The OPA President will interview everyone concerned and render a verdict prior to the awards ceremony.

2. Frivolous protests and/or false accusations will not be tolerated in OPA Racing. Such actions shall subject the protestor to unsportsmanlike conduct penalties.

## **PROTESTS - TECHNICAL RULES VIOLATIONS**

1. Protests - Contestants within the same class shall have the right to protest technical violations of these rules by a competitor in the same class. Technical rules shall be interpreted to be those governing the qualifications of the race boat itself, its engines, its structure, and its conformance with descriptive rules established to describe its eligibility to compete in its class.
2. Written Filing - All protests must be filed in writing with the OPA President/OPA Coordinator.
3. Specifics - All protests shall state which rule was violated.
4. Notification - Should the Referee determine that all requirements for a protest have been satisfied, he shall accept the protest and immediately take whatever action is necessary to resolve the protest as soon as possible. Upon acceptance the written protest or a copy thereof shall be provided to the protested team owner or his representative as soon as practical. The decision of the Referee shall be made as quickly as possible and communicated to all parties concerned.
5. Handling of Protest Fees - If the protest is upheld the protest fee shall be returned to the protesting party. Should the protest be denied a portion of the protest fee shall be paid to the owner of the boat protested to defer the cost of any tear down with the balance to be retained by OPA Racing.
6. Supervision by OPA Official - In the event of a teardown under these rules an approved inspector must be present during and supervise the teardown process and file a written report detailing the findings with the OPA President.
7. Fees - protests must be accompanied by the proper fee in accordance with the following schedule:
  - a. \$1000.00 for a Stage I protest.
  - b. \$2500.00 for a Stage II protest.
  - c. \$5000.00 for a Stage III protest.

## **TEAR DOWN PROCEDURES**

### **FOUR CYCLE ENGINES**

1. Stage I - \$1000.00
  - a. The owner or his crew shall prepare engine for P & G and remove the intake manifold and/or exhaust manifold(s) as instructed by the inspector.
  - b. The inspector may check any part of the engine for compliance with technical rules limited only by the extent of tear down indicated by paragraph 1 above.
2. Stage II - \$2500.00
  - a. The owner or his crew shall prepare the engine for Stage I inspection as well as remove one or both cylinder heads as instructed by the inspector.
  - b. The inspector may check any part of the engine for compliance with the technical rules limited only by the extent of tear down as indicated by paragraph (a) above.
3. Stage III - \$5000.00
  - a. The owner or his crew shall remove the engine from the boat and disassemble the engine completely as instructed by the inspector.

- b. The inspector may check any part of the engine for compliance with technical rules.

## **TWO CYCLE ENGINES**

### **1. Stage I -\$1000.00**

- a. The owner or his crew shall remove an intake manifold and a cylinder head as instructed by the inspector.
- b. The inspector shall measure port sizes, displacement, compression, venturi sizes, and check for compliance with all or any technical rules and/or specifications at his discretion, limited only by the extent of tear down indicated by paragraph 1 above.

### **2. Stage II -\$2500.00**

- a. The owner or his crew shall remove the powerhead, exhaust plate, and lower unit from the center section, and also remove the intake manifold, both cylinder heads, and all pistons from the powerhead.
- b. The inspector shall measure or otherwise check any or all parts of the motor to determine compliance with all or any technical rules and/or specifications at his discretion, limited only by the extent of tear down indicated by paragraph 1 above.

## **PENALTIES**

1. No penalty shall be imposed on a racer unless the violation has been observed by an OPA official.
2. A race boat that may endanger, in the opinion of a race official, another boat, person, or any other property may be disqualified.
3. Violations during the start of the race- SEE STARTING PROCEDURE.
4. If a race boat does not come off plane and maneuver in a safe manner while in a designated spectator area, may be disqualified or given a one (1) minute penalty.
5. Any participant that does not wear his safety equipment while on plane subjects the entry to disqualification.
6. Race boats must execute all turns on the course properly. If a boat cuts the course, a 1 minute penalty will be assessed.
7. A race boat that intentionally endangers another race boat, patrol boat or spectator boat will be disqualified.
8. During a race, any outside assistance rendered to an official entry in any manner will result in disqualification, other than retrieving a racer from the water and replacing him on his race boat.
9. During a race, if a race boat leaves the official race course, it will be considered out of the race at that time.
10. The opinion of the Official or OPA President, if any OPA rule, including unsportsmanlike conduct, is broken and adversely affects the reputation of the sport, the member is subject to disqualification, suspension, or expulsion.
11. Any member participating in a race while under the influence of intoxicants or any illegal drug shall be suspended or expelled.
12. In the event a rule violation occurs that is not addressed in the Rule Book, the referee or OPA President shall determine and assess an appropriate penalty. OPA will then assess the issues if there is a need to add it to the Rule Book permanently or as an addendum for the season.
13. It is MANDATORY that all racing, riding and crew members participating in the event check in at registration and sign the entry forms and insurance waiver. PRIOR TO TESTING OR RACING THEIR BOAT. Failure to do so will result in DISQUALIFICATION.



14. Any race team that has a person in the race boat during the race event, and they are not a current Team Member, or have not signed the waiver will be disqualified.
15. All race teams that plan to have their own Medical person(s) flying over the boat during the race will also need to sign the insurance waiver and must have a current OPA Team membership prior to the event.
16. The unexcused absence of an entrant to either racers meeting or roll call may result in a financial penalty of \$150 (one hundred fifty dollars). The further absence at the end of the drivers meeting may result in an additional one (1) minute penalty.
17. In the event of a protest, after race, the class representatives from all classes will consult with the Referee and race officials to help determine if the penalty should be upheld or revoked. The OPA Referee will make the final decision.
18. Any boat caught breaking out of their speed bracket will receive last place points and will start the next race in the outside lane. GPS units will track this. GPS units are mandatory in each bracketed class race boat, otherwise they will be disqualified.
19. In the event that there is a boat that does not start (DNS) and there are other infractions on the race course, that of a DNS will be given last place points.
20. In the event a GPS does not give a reading, the entrant will receive last place points..
21. It is the racers responsibility to install the GPS unit correctly and to make sure that the GPS unit and antenna is securely mounted. A disqualification can be granted in the event that the GPS records NO data.
22. Any boat caught CHEATING will receive last place and no points. They will also start the next race in the outside lane, beyond all other boats.
23. Any prop that is questioned as to its legality, will be sent to an official OPA propeller inspection service. Any propeller deemed to be illegal in pitch will be seized and the boat given last place points for the race where the infraction was found.
24. At no time is a boat permitted to go over the bracketed speed once they have entered the race course. Once a boat enters the mill, it is considered to have entered the race course. If a boat breakouts during the parade lap or after the race on a victory lap, a breakout will be marked against the team.
25. Any boat that hit a turn marker and dislodges and/or deflates the pillow, it will mark the end of that boats race and will be disqualified.

#### **RACER PROBATION, SUSPENSION, AND EXPULSION**

1. No member who has been expelled from OPA or is currently under suspension shall be permitted to officiate, serve as a race committee member, act in any capacity of assistance, or participate as a boat owner, driver, or crew in any OPA event.
2. No boat owned by the individual will be allowed to complete nor shall it be chartered or otherwise transferred, except by a final sale of true market value.

#### **PARTICIPANTS & OFFICIALS LIABILITY**

1. All participants in an OPA event must be a current OPA member and execute a liability waiver in favor of OPA prior to testing or racing. No member shall hold another member, volunteer or spectator liable for any personal injuries or damage resulting from an accident, which occurs during an OPA event. The exception would be the result of a deliberate, premeditated act. An interpretation of an incident shall rest with the Referee and the OPA President. All participants are personally responsible for the recovery of their disabled or damaged boat.

## **RULES OF THE ROAD**

1. Before and after a race, all boats will follow United States Coast Guard and State rules of the road while traveling to and from the race course.
2. Passing Marks: Should an overlap exist between two or more boats when they are about to pass a mark on the required side, then the outside boats shall give the inside boats room to pass clear of the mark leaving it on the required side.
3. Passing obstacles: Should an overlap exist between two or more boats when they are about to pass an obstacle, then the outside boats shall give the inside boats room to pass clear of the obstacle.
4. Racing in turns. Slower classes stay to the inside, and faster classes to the outside.
5. It is the racers responsibility to know the Navigational Rules when on the water, and must adhere to all the rules & guidelines. Below are the links to view online:
  - a. U.S. Coast Guard's Navigation Rules :  
<http://www.uscgboating.org/regulations/navigation-rules.php>
  - b. Federal Navigation Regulations  
<https://www.navcen.uscg.gov/?pageName=regContent>

## **STARTING PROCEDURE**

1. The establishment of a safe milling area: In this area, boats must be off plane (bow down, no wake). All boats must turn in a counterclockwise direction in order to maintain a safe unified start.
2. Each start must be separated, establishing its own counterclockwise direction. The OPA President will let the classes know which start they will be with at the final drivers meeting.
3. The official pace boat shall be used to start all racing classes individually or groups. At the discretion of the referee multi pace boats may be utilized. The pace boat shall steer a course closest to one side or the other of the starting chute.
4. A safe zone shall be established behind the pace boat at 100 feet. Race boats shall maintain a safe clearance between each other.
5. At a slow pace, crossing in front of the fleet, the pace boat shall bring each group of classes out to their respective rotation prior to making the turn toward the start line at a safe speed.
6. The Pace Boat will give the green flag once all boats are lined up.
7. The actual start of the race is determined when the green flag is raised within the pace boat. An official start time begins when the bow of the boat crosses the start line.
8. An official starter, aboard the pace boat will use hand signals to control the starting fleet.
9. If at any time during the start procedure, a red flag is displayed the start is aborted. All boats must once again return to an off lane status within the milling area for restart following specific instructions from the pace boat.
10. A race boat, which is disabled or cannot get on plane, must not interfere with the remaining starts. The craft must proceed to a side of the chute and wait for a clear lane to commence their start. Boats that fail to start with their respective class have a thirty minute time period to do so, at this time an official start would be by crossing the official starting line.
11. Pace boat crew shall be limited to not more than six designated persons assigned by the referee. The six personnel shall be designated as driver, driver's assistant, flagman, flag man's assistant and starter.
12. Infractions of start of race may result in a one minute penalty.

13. Any boat in violations of a starting violation will be assessed a 1-minute penalty. Starting Violations are as follows: Jump the start, crowd the pace boat, interfere with starting procedures, come onto plane in the milling or slingshot the start. If there is any boat that breaks this rule as a repeat offender, it may result in a disqualification in which you will be given last place, and last place points.
14. Lane selection is determined by reverse finishing order from the previous race, the break-out boat, then new boats to the outside.
15. For the first race of the season, lane selection is determined by the luck of the draw during the morning of the drivers meeting. (This is also the case for lane selection at the World Championship races)
16. If at any time a race boat runs along side of, or runs ahead of a Pace Boat, there will be a \$500 fine issued and as well as they run the risk of being disqualified. This includes when a boat is heading to the mill, during the parade lap, as well as the start of the race.

### **RESTART PROCEDURE**

1. If in the event a race is Red Flagged, ALL Boat MUST clear the area of the incident and proceed back to the mill. (Boat is capsized or occupants in the water)
2. Race Control will give instructions on 78A for a restart of notify "End of Race"
3. Your placing at the time of the Red Flag is that of the LAST COMPLETED LAP.
4. The boat that caused the caution will be scored last among the boats that were still actively racing at the time of caution.
5. If in the event there is an incident involving a caution and a restart CANNOT occur (permit expiration, helo deployment, etc.) the boat(s) NOT involved in the incident that would have been able to restart will place higher than that of the boat(s) involved in the incident.
6. The finishing order at the time of the Red Flag's last completed lap of the would be the restart for lane assignment. (1st place gets the pole, 2nd place in lane 2, etc.) This information will be reported to Race Control from the Chief Scorer.
7. The only instance in which the Starting Lane position will be used in a restart is if an incident occurs before the 1<sup>st</sup> lap is completed.

### **PACE BOAT REQUIREMENTS**

1. Meet all U.S. Coast Guard requirements.
2. Be seaworthy and in good working condition.
3. Be a minimum of thirty two (32) feet in overall length.
4. Have the capability of obtaining a minimum of fifty (50) MPH while transporting a maximum of six (6) persons.
5. Establish a minimum of 16 years of age for all occupants.
6. If a pace boat cannot get up on plane it will move as fast as it can or raise the green flag at the position it is in.

### **FINISHING PROCEDURE**

1. The race is completed when the last place finisher in all classes crosses the finish line.
2. At the discretion of the OPA Director, each non-official first place boat in each current racing class will be brought over to the start/finish boat by a checkered flag after they pass the finish point. It is the responsibility of the racers to know the number of laps they have completed. A checkered flag will be displayed at the end of a race. (Reminder: There are multiple races occurring at one

time, you are to finish the class required laps. Do not assume your class race is over because you see a checked flag)

3. In order to be scored as an official finisher, a race boat must make a legal start within its class. The driver of record or the designated driver must be in the boat.
4. After completing the course, race boats should turn into the center of the course as not to interfere in with the continuation of the race.
5. Podium members MUST comply with 30 minutes of Media Coverage
6. The winner of a race is deemed when passing the Checkered Flag on the Start/Finish boat. The finish line is the "line of site" of the Chief Scorer to a fixed spot on land. The Finish line will not necessarily line up with the Start/Finish Buoy. Not all races will have a start/Finish Buoy on the race course. The Chief Scorer will be seen on the Start/Finish boat with the checkered flag at the end of the race. A GPS coordinate of the Start/Finish boat will be submitted by the Chief Scorer for a location, however, the location can change throughout the day due to conditions (wind, tide, etc.)

### **EMERGENCY RACE STOPPAGE**

1. In the event that an unsafe condition may occur at the time of the start of the race or after the race has started, which may necessitate emergency stoppage of the racing event, the following procedures may be used:
2. Stoppage will be indicated as race boats pass through the start/finish line, by a Red Flag displayed and waved from the Pace Boat(s) or Start/Finish boat. Position of finish shall be recorded at this point.
3. Should the race have to be stopped at any other point on the race course, Red Flag should be waved from the checkpoint boat. When the race has been stopped at a given check point, all race boats are then to return directly to the official wet pit area following USCG Rules of the Road. Position of finish shall be recorded at this point.
4. A "thumbs down" signal from a medical and safety helicopter may also be used to indicate a race boat to stop, that a major unrecognized problem exists with that boat. This is your notice to officially and immediately stop and communicate with race control or to follow instructions from the medical and safety crew present. Position of finish shall be recorded at this point.
5. Emergency race stoppage issued by pace boats and start/finish boat may occur at the discretion of Race Control in conjunction with the OPA President.
6. EMERGENCY RACE STOPPAGE: If at any time a boat is capsized or occupants in the water, the race is undoubtedly stopped, pending restart.
7. Race Control has the authority to stop a race with input from the Medical/Safety Director in conjunction with the OPA President.

### **POSTPONEMENTS**

1. If a race cannot be ran in it's entirety of scheduled laps/miles due to inclement weather or any other unforeseen circumstances, a storm course may be substituted. This decision shall be made by the U.S. Coast Guard, Race Control, and the OPA President. The decision shall be announced no later than the drivers meeting or up to one hour prior to the race start.
2. Hourly postponements will be permitted when weather or other conditions are such as to make it unsafe to start a race at the designated time, but there is a reasonable chance that conditions will improve. In no case shall a race be started if it will place race boats on the course within one hour prior to sunset.

3. If a race cannot be ran due to inclement weather or any other unforeseen circumstances, each registered racer will receive 50 points for attending the event.

### **SPEED RECORD RUNS**

1. All OPA Speed Record events must offer all OPA registered race boats the chance to set a record. All OPA Speed Record Runs must be made known to all OPA registered teams at least forty five (45) days prior to the event.
2. There may be only one Official Speed Record per class. The event producer can choose between a measured mile, nautical mile or kilometer depending on the size of the area surrounding the course. There should be at least one half mile of running room outside the measured course on both ends of the course.
3. Each boat must run the course in both directions. Both runs must occur within 10 minutes of the time the boat first entered the measured racecourse on the first run. The speed of both runs will be averaged to calculate the boats overall speed. All boats are allowed to run the course twice (in both directions) during the Speed Run Event.
4. The course must be marked at both ends with buoys or other course markers to allow drivers to know when they have entered and exited the measured course.
5. A certified and licensed surveyor must measure the course before the event. Fixed markers must be posted or affixed on solid ground at each end of the measured course. Photoelectric timing lights must be placed in such a way the both sets of timing lights shoot parallel lines to the fixed markers. Timing lights must be set at right angles to the measured course. Timing lights must trigger electronic stopwatches with digital readout or interface with a computer program. No mechanical stopwatches allowed. An official timer and timer observer must be present at both timing light locations while boats are using the measured course.
6. If two sets of timing lights are used, the time of the two units will be averaged to come up with the boats actual speed through the measured course.
7. At least two people must be in the boat during the record setting attempt. All other general safety rules must be met prior to the start of the record speed run. All safety
8. Equipment must remain in the boat at all times.
9. Order of record attempts will be chosen by lottery during the morning drivers meeting.
10. The course must have at least four safety boats. One boat must have divers on board one of the other boats must have a medic on board. Boats with divers and medic must be placed near the center of the course at least 50 yards off the actual chute. Other patrol boats should be in the area to ensure a secure course. Another boat with radio contact to Race Control should be in the milling area to notify boats when it's their turn to make a record attempt run.
11. An OPA referee must be present during all record setting attempts.
12. Time of day must be recorded for each run through the measured course.
13. Individual speed record runs may start anytime between one half hour after sun up to one hour before sunset.

### **PROHIBITED CONDUCT**

In addition to the rules violations and associated penalties described above, the following constitutes a list of prohibited conduct:

#### **COURSE INFRACTIONS**

1. Observed Infraction - No course infraction penalty shall be assessed to any competitor unless an OPA official has observed the infraction.

2. Reckless Driving - Recklessly endangering any craft, patrol boat, medical boat, spectator boat, person, or property shall result in disqualification from the event.
3. Government Regulations - Any owner, driver, assistant or official, whether competing or not, who shall violate a published local Coast Guard, or Harbor Department regulation or in any way interferes with the racing event may receive a time penalty of up to 3 minutes and/or disqualification from the event.

#### **OUTSIDE ASSISTANCE**

1. Once a race boat has begun the parade lap or taken the green flag to start the race, accepting any outside assistance to make any changes, taking on fuel, supplies or equipment of any description, to effect repairs, to dislodge craft after having run aground, or any assistance that would thus enable a disabled race boat to continue the race, such as accepting a tow or negotiating any part of the course using any facility except its own power shall result in the boat no longer being scored.
2. All race boats must report to the starting area under their own power.
3. Radio communications from shore crews shall be allowed as long as the communications are conducive to the best interests of offshore powerboat racing and do not contain unsportsmanlike comments or interfere with Race Control private channel, VHF or aviation frequency radios.

## **RACE ORGANIZATION**

The following procedure has been established to guide in obtaining an OPA sanction event:

### **ENTRIES**

All boats must be registered the day prior to the race. The OPA President or Race Director reserves the right to refuse an entry up to the start of the race. (Registration hours vary at each race site. It is the racers responsibility to check the Schedule of Events for registration hours.)

### **RACER PACKET**

The racer packet will be available as a download from the OPA Web Site (where applicable) at ([www.oparacing.org](http://www.oparacing.org)) the information in the race packet shall contain the following data:

- Date and location of race
- Registration & GPS location information
- Time of Race Starts (subject to change)
- Availability of launching
- Availability of fuel and/or fuel purchase requirements
- Availability of accommodations, to include names, and phone numbers
- Race course description and mileage
- Time and location of inspections
- Time and location of official drivers meeting
- Any other pertinent information pertaining to the race agenda
- All sponsor requirements

To the extent that any conflict may exist between racing rules (general & technical) outlined within the OPA Racing Rule Book and another sanctions rule book at a joint event, OPA Racing rules are primary and shall govern over the race event.

### **RACE REGISTRATION & OPERATIONS**

1. It is MANDATORY that all riding crew and crew members participating in the event:
  - a. Sign-in at race registration upon arrival.
  - b. If in you arrive after registration hours you MUST sign in prior to inspections, walk-throughs testing and racing.
  - c. All membership information, including medical and safety requirements, tax forms, and equipment registration must be on file with the OPA registrar prior to the start of each race.
  - d. Mandatory check-in at each race site must be observed and all required paperwork signed in person.
2. All Crew must be a current member and check-in at each race site. Crew must sign all paperwork & forms in person.
3. Equipment must be registered for the current year with OPA.
4. It is the responsibility of the Driver of Record to verify that all insurance releases and entry forms are signed and that all riding crew members are a minimum of 16 years of age.
5. It is the responsibility of the Driver of Record to verify changes of riding crew within race boats.



6. **Deadline** - At all events, each riding crewmember must complete all registration requirements by the time set in the OPA Racer Packet or Schedule of Events (same times are in both). All required signatures and any other missing information on the entry must be provided by this time.
7. **Penalties** - Entrants failing to complete registration requirements prior to the deadline shall receive a fine at the discretion of the Chief Registrar and/or up to a 1 minute penalty at the discretion of the event Race Director. Entrants not completing all registration requirements prior to entering the race course on race day shall be disqualified and subject to suspension.
8. **Late Entries** - Late entries at events shall be accepted at the discretion of the conducting club. A financial penalty may be assessed.

## **FEES**

1. No fees nor any portion of fees shall be returned to a member for any reason.
2. You must register and sign-in during open registration hours at each race site.

## **FEES – OPA MEMBERSHIP**

1. Each riding team member: Driver, Throttleman, and Navigator must be an OPA annual team member at a membership fee of \$150.00 per person.
2. Each non-racing crew member must be an OPA annual member at a membership fee of \$100.00 per person.
3. Only persons that are current OPA members will be permitted in the hot pit areas (crane, ramp & wet pits). As well as, ONLY persons that are current OPA members will be permitted to board boats while in the dry pit areas.
4. Any person that is in the vehicle at the crane and/or ramp MUST be a current OPA member.
5. Media will be given passes providing the sign the waiver in registration. In many cases, Media will be denied access to restricted areas.

## **FEES – OPA EQUIPMENT REGISTRATION**

1. Each racing hull must be registered annually
2. If you are racing your boat in multiple classes, you MUST pay an Equipment Fee for the hull in each class
  - Production Classes 1-6: \$1500.00
  - Production Class 7: Fee is waived for the 2023 season
  - STOCK VEE: \$1500.00
  - Modified Vee: \$1500.00
  - Vee Extreme: \$1500.00
  - Super Stock: \$1500.00
  - Factory Stock: \$1500.00
  - Super Cat: \$2000.00
  - Unlimited: \$2000.00

## **FEES – RACE ENTRY FEE**

1. All Entry Fees at OPA Sanctioned Races are collected by OPA
2. If you are racing your boat in multiple classes, you MUST pay an Entry Fee for each class you have entered.
  - Production Classes 1-7: Fee is waived



- Stock Vee: \$1000.00
- Modified Vee: \$1000.00
- Vee Extreme: \$1000.00
- Super Stock: \$1000.00
- Factory Stock: \$1000.00
- Super Cat: \$1000.00
- ClassONE USA: \$2000.00
- Unlimited: \$1500.00

## FORMS

Below is a list of forms that is required by members to fill out and submit to the OPA Chief Registrar. These forms can be found on the OPA racing website [www.OPAracing.org](http://www.OPAracing.org) under the “Resources” tab. If you have forgotten or are a new member, contact the Chief Registrar for login credentials.

- For each Individual Racing member, Please submit:
  - Membership/Medical Form
  - Medical Rescue
- For each Individual Non-Racing member, Please submit:
  - Membership/Medical Form - REQUIRED to have Hot Pit Access (Crane & Wet Pits)
- For each Race Official member, Please submit:
  - Staff/Volunteer Form
- For each Team/Boat, Please submit:
  - Equipment Registration
  - Race Entry Form
  - W-9
- If submitting your registration, membership, & Entry Forms via ONLINE SUBMISSION, You will need to sign your submission in person and will need fill out a W-9

**ALL FORMS ARE TO BE SIGNED IN PERSON ON-SITE DURING OPEN REGISTRATION HOURS!**

## BOARD OF DIRECTORS

The OPA Board of Directors shall serve at the discretion of the OPA President. They shall perform certain duties as requested from time to time by the OPA President. Notwithstanding anything herein to the contrary, no material technical rule change shall be implemented without the sole approval of the OPA President. The responsibility of each board member will vary with the nature of their main purpose within the organization. Chairman of the Board will always be that of the person who’s title is president of the organization. Those that serve on the board may hold a title that of an Inside Director or an Outside Director.

## RACERS MEETING

1. An owner of equipment or driver of record may designate a riding crewmember as his representative at the initial drivers meeting. It is then the responsibility of the crewmember to relay any and all matters discussed at the meeting to the owner and racing members.

2. The Referee shall make the initial roll call at both drivers meetings and verify the presence of each entry or a member of his riding crew. The unexcused absence of an entry to either drivers meeting roll call shall result in a one (1) minute penalty.
3. Any race postponement or substitution of an alternate storm course shall be announced at the racers meeting. (A second meeting may be necessary to discuss changes in the course. It is the racers responsibility to be at this meeting to receive the updated information.)
4. Spectator, No Wake and/or shallow areas shall be specifically referenced at the racers meeting and racers warned of all penalties that may be involved.
5. Announcement of the pilots briefing on any aircraft covering the race shall be made at the initial drivers meeting.
6. Boats are not permitted to participate in testing unless they attend the Racers Meeting held on the day of testing. (Boats cannot be launched (crane or ramp) until completion of this meeting.)
7. Boats are not permitted to participate in the races unless they attend the Racers Meeting held on race day. (Boats cannot be launched (crane or ramp) until completion of this meeting.)

### **RACER CHANGE ON RACE DAY(S)**

1. Procedures - The below must be followed for any and all changes in a racer's position in the boat at each event/race:
  - a. On race day, a racer cannot be substituted without proper notification and registration.
  - b. Chief Scorer and/or Race Control MUST be notified of the change of racer in the boat.
  - c. If proper notification is not given, a disqualification will be awarded.

### **ON-SITE TESTING**

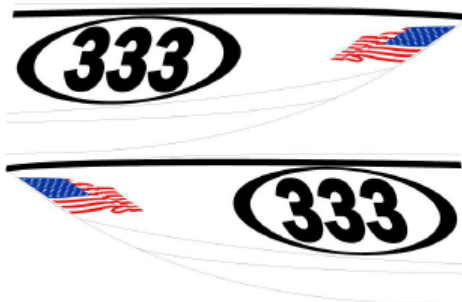
1. Procedures - The below must be followed for any and all changes in a racer's position in the boat at each event/race:
  - a. No person will be allowed to participate in testing unless they have registered and signed the waiver.
  - b. No persons will be allowed to participate in testing unless they attend the Racers Meeting held on the day of testing.
  - c. Boats are not permitted to participate in testing unless they attend the Racers Meeting held on the day of testing. (Boats cannot be launched (crane or ramp) until completion of this meeting.)
  - d. Under NO Circumstances is a NON-OPA Member allowed to take to the water in testing.
  - e. If in the event a crew member is a person partaking in testing in the boat, the OPA Registrar MUST be notified.

### **EQUIPMENT IDENTIFICATION & REGISTRATION**

1. All race boats entered in an OPA event must be registered annually with OPA headquarters. Registered boats must display the number assigned to them by the OPA registrar.
2. All boats must have the official OPA logo displayed near cockpit on both sides of the hull.
3. Boats are not permitted display logos of other Sanctioning race bodies. Only sanctioned logo permitted on the race boat is that of OPA.
4. If a race boat is sold or transferred to an individual who is not a racing member of OPA it is the responsibility of the original owner to remove the racing number and any OPA affiliation from the hull.

5. The assignment of a racing number in no way guarantees that the boat is qualified in any specific class, technical specifications determine the class as set forth in these rules.
6. When choosing a boat number, the owner **MUST** contact the Chief Registrar of OPA to determine if the number is available. Make **NO** assumptions that a number is available. The numbers on the boat **MUST** be a contrasting color to that of the hull.
7. Sponsor decals issued in registration are mandatory. A four foot area in the rear of the hull, below the rub rail is to be made available for display.
8. American Flags are required on hulls. The flags must be painted or in decal form. American Flag must be a minimum size of 9"x12". Recommended placement of the American Flags is bow forward and displayed on each hull side. (See below diagram).

#### **BOAT NUMBER & FLAG DECALS**



#### **9. CLASS NUMBER ASSIGNMENT**

<u>DESIGNATION</u>	<u>SPEED</u>	<u>NUMBER</u>
Unlimited	Unlimited	00 - 999
ClassONE USA	Unlimited	00 - 999
Super Cat	Unlimited	00 - 99
Super Stock	Unlimited	S-2 - S-111
Factory Stock	Unlimited	F-2 - F-99
Vee Extreme	Unlimited	00 – 99
Stock Vee	Unlimited	00 – 99
Modified Vee	Unlimited	00 – 99
Class 1	Up to 115 MPH	100 - 199
Class 2	Up to 105 MPH	200 - 299
Class 3	Up to 95 MPH	300 - 399
Class 4	Up to 85 MPH	400 - 499
Class 5	Up to 75 MPH	500 - 599
Class 6	Up to 70 MPH	600 - 699
Class 7	Up to 60 MPH	700 – 799

10. The OPA National Championship in each class will be the only boat allowed to carry the number ONE (#1) for the following season. If the #1 is NOT chosen to be used by the National Champion in the class, NO boat will be permitted to use #1 as their number. (Example: If Team A is the 2019 National Champion but chooses to use their registered # of 111 in the 2020 season, and Team B who was the National Champion in 2018 and used #101 for the 2019 season, Team B will NOT be permitted to use #101 again for the 2020 season. They must use their previously registered number.)

- a. Production Class boats must follow the boat number rule of a 3-digit number in which the first number represents the class in which the boat runs in. Ex. #101, #201 etc..
  - b. Super Stock must follow the boat number rule of the Alpha-Numeric numbering: ie. S-11, S-22
  - c. Other Classes must follow their class numerical system
  - d. ONLY an OPA National Champion is permitted to race with the designated National Champion Alpha-Number combination. If you are a National Champion in an organization other than OPA, will be need to follow the standard Alpha-Number Class Number assignment
  - e. National Championship alpha-numeric status
    - i. Unlimited – N/A
    - ii. Super Cat – US-1
    - iii. Vee Extreme – 1
    - iv. Super Stock – S-1
    - v. Factory Stock – F-1
    - vi. Modified Vee – M-1
    - vii. Stock Vee – V-1
    - viii. Class 1 – 101
    - ix. Class 2 – 201
    - x. Class 3 – 301
    - xi. Class 4 – 401
    - xii. Class 5 – 501
    - xiii. Class 6 – 601
    - xiv. Class 7 – 701
11. No boat will be allowed to run in the same class with an identical number. A letter may not be added at the end of the number in the attempt to differentiate the boat number (It must be that of a numerical digit and of the same size as the other numbers).
  12. No boat will be allowed to run the course at the same time on the race course with an identical number. A letter may not be added at the end of the number in the attempt to differentiate the boat number.
  13. Boats within the Modified Vee & Stock Vee classes will NOT be issued the same number.
  14. #413 was retired for Class 4 in 2012. Boats cannot obtain #413 when running in Class 4
  15. #711 is unavailable for use in all classes
  16. #533 is unavailable for use in all classes
  17. All boat numbers shall contain no more than three (3) numerical digits. Numbers shall be vinyl or paint in black vertical block lettering over a white background. If applied to a white hull, a black border must surround them. Numbering must be in direct contrast to the color of the hull. The minimum height of each number shall be eighteen (18) inches, minimum width shall be thirteen (13) inches, and minimum stroke shall be three (3) inches. Minimum spacing between each number shall be four (4) inches. The racing numbers shall be clearly visible on either beam and from above. The numbers shall be displayed on the foredeck and shall read correctly from the driver's position and shall be underlined by a black bar. Side numbers shall be on the front portion of the hull, on the port and starboard sides, including the upper deck. If the number and background is NOT a direct contrast the boat will NOT be scored. Any number that becomes unreadable during an event will be scored at the discretion of the chief scorer. (For smaller boats contact OPA offices for dimensions)



Numbers/background MUST be Black on White or White on Black, whichever is to the best contrast of the boat.

### **RACE COURSE DESCRIPTION**

1. All check points shall be fixed buoys, boats, or fixed landmarks. All check boats will fly a 3' X 5' orange flag or specifically designated marker from the highest point above the water line. An additional specifically designated flag may also be utilized. The OPA Director may designate any additional distinctive marking from time to time at his discretion to distinguish check boats from surrounding spectator craft or other inhibiting backgrounds. Numbering of the orange flags to correspond with the check boat number is a mandatory requirement.
2. All turn marks of the course must be negotiated as designated by the published race instructions or as directed specifically by the OPA Director at the initial or secondary drivers meeting. All race boats in order to be scored shall negotiate these check points at a distance not greater than 200 feet or less than 50 feet from the check point boat. A buoy or fixed mark shall be a minimum of 200 feet from the checkpoint boat to aid in identifying the slot. Binoculars used for confirmation of passage are permitted. Should any mark of the course be absent from the proper position during the course of the race, the race committee shall try and replace it. If the mark cannot be repositioned, race boats should negotiate the checkpoint boat or corresponding turn as designated in the drivers meeting.
3. The driver must execute all marks on the course properly, maintaining a safe clearance from other racing competitors (rules of the road always apply).
4. A race boat that cuts the course or misses a checkpoint (Buoy/Turn) will be assessed a 1 minute penalty for each missed buoy. If a race boat hits a buoy the owner of equipment (boat) must pay for the cost of the marker after the race.
5. The distance of the race shall be a minimum of 20 statute miles and a maximum of 100 statute miles depending upon the class. Storm courses can be shorter.
6. All courses shall be approved prior to the event by the referee or OPA Director.
7. It shall be a minimum of point five (.5) statute mile from the start line to the first turn.
8. Any turn that exceeds 90 degrees must have two (2) buoys, at least 100 feet apart.
9. Race control must be equipped with an aircraft VHF radio or private band radio in addition to a VHF Marine radio base for medical and safety communications.
10. The race committee will not permit any spectators within 100 yards aft or 200 yards in front of any check boat or turning mark of the racecourse.

### **AWARDS AND PRIZE MONEY**

1. No awards or prize money shall be distributed to any driver until protests have been completed and the official order of finish is posted by the race committee.
2. Any boat that receives prize money and has an outstanding debt with OPA will have that debt taken out of the prize money that is due them. If fees are paid by check at the race site, prize money may not be paid until check clears.

3. The sponsoring organization may designate special awards for outstanding performances.
4. All prize purses shall be established and announced in the driver's packet.
5. All prize money will be distributed by mail from the OPA main office.
6. Trophies will be awarded to the first three finishers in each class. It is the responsibility of the racer to accept their trophy at the awards ceremony or have a representative accept their trophy on their behalf. OPA will not be responsible for the trophy after the event.
7. Prize money will be made payable to the owner of registered equipment.
8. If in the event Travel Money is offered, there will NOT be additional prize monies offered.
9. All rules in the rule book and all requirements of sponsors must be met, in order to participate in the prize purse.
10. Any boat found CHEATING will forfeit any remaining prize that OPA is holding from a prior race.
11. The purse will be divided evenly between all classes with at least five participants. The breakdown will be as follows within each class.

1<sup>st</sup> Place – 50%

2<sup>nd</sup> Place – 30%

3<sup>rd</sup> Place – 20%

12. In order to receive a payout, a team MUST be fully registered with OPA.

## SCORING PROCEDURE

1. The actual start of the race is determined when the green flag is raised within the pace boat. An official start time begins when the bow of the boat crosses the start line.
2. The race is then scored by completed laps/distance completed. A completed lap is when a boat crosses the start line, and continues around the marks of the course and back to the finish line.
3. In order to be scored as an official finisher, a race boat must make a legal start within its class. The driver of record or the designated driver must be in the boat.
4. Points shall be awarded to the boats in all classes.
5. It is discretion of an OPA official to award points for a boat that is unable to make a start. The Owner of the boat must contact an OPA official with the reason(s) for not being able to make the start. The OPA official has the right to inspect the boat for any said reason for being unable to make the start as and to determine if there is a justification to awards last place points for a DNS. If a team fails to notify an OPA official and/or refuse inspection to an OPA official, no points will be awarded to the team.
6. In order for a boat to receive points for a DNS they must be on-site, inspected and deemed "Race Ready"
7. In the event of a tie in a regular season race:
  - a. Due to laps completed: Placement will be resolved by who ran the longest distance on the course. In the event a tie still exists, placement will be determined by average lap speed.
  - b. Due to breakouts: Placement will be resolved by who broke out the least amount of times. In the event a tie still exists, placement will be resolved by total duration of all accumulated breakouts.
8. Points will be allocated to all entrants throughout the season. If a race boat starts but does not go the full first lap, he will receive points in the place he finished in his class.
  - a. If a boat cannot make the start of a race, he will receive last place points. However, it will be at the discretion of an OPA Official if points will be awarded. The boat must be inspected by any OPA Official. If a boat leaves the race site prior to being inspected by an OPA official, no points will be granted for appearance.

## FINISHING ORDER TIE-BREAKERS

1. In the event there is a tie due to laps completed (DNF), placement will be resolved by who ran the longest distance on the course.
2. In the event there is a tie due to breakouts, placement will be resolved by who broke out the least amount of time. In the event a tie still exists, placement will be resolved by which boat ran the highest speed and will be placed the latter of the boats tied.
3. In the event there is a Breakout and a Disqualification (DQ) in a single race, the boat with the Breakout will place ahead of the team with the DQ
4. In the event there is a Breakout and a Did Not Start (DNS) in a single race, the boat with the Breakout will place ahead of the team with the DNS.
5. In the event there is a Breakout, DNS and a DQ in a single race, the boat with the Breakout will place ahead of the DNS and the boat with the DNS will place ahead of the DQ.
6. In the event there more than 2 or more boats that Did Not Finish (DNF) in a single race, the boat that has completed the greatest distance on the race course will place better. (ie: TeamA completed 5 laps, TeamB completed 7 ¼ laps, TeamC completed 5 ¾ laps. Placement in finishing order will reflect: TeamB >>TeamC >> TeamA.)
7. In order for a boat the does not finish a race to place better than a breakout the boat MUST finish 50% of the raced to place better than any boat that has a breakout. For race with an odd number of laps the percentage of distance will be rounded up to a completed lap. (Parade lap is not counted as a racing lap)
  - a. ie: Boat A has no breakouts and completes 4 of the 8 required laps, Boat A will place better than a boat(s) with a breakout
  - b. ie: Boat B has no breakouts and completes 2 of the 8 required laps, Boats B will place after boats with a breakout
  - c. ie: Boat C is competing in a race with 9 laps, the completed number of laps to place better than a breakout is 5 laps
8. See below sample for proper Finishing Order sample
  - 1st Place - Team A (no penalties)
  - 2nd Place - Team B (no penalties)
  - 3rd Place - Team C (1 minute penalty)
  - 4th Place - Team D (DNF - 5 laps of an 8 lap race due to breakdown in which Race Control has been notified)
  - 5th Place - Team E (Boat involved in an incident that resulted in a red flag)
  - 6th Place - Team F (B/O 3.1 sec)
  - 7th Place - Team G (B/O 10.7 sec)
  - 8th Place - Team H (DNF - 3 laps of an 8 lap race due to breakdown in which Race Control has been notified)
  - 9th Place - Team I (DNR – *GPS Did Not Read*)
  - 10th Place - Team J (DNS)
  - 11th Place - Team K (DQ)

## PARADE LAP

1. Boats will proceed to their respective Pace Boat and wait for signal/movement from the Pace Boat to start the Parade Lap. The pace boat will run the parade lap under a yellow flag.
2. All boats MUST stay with their respective class during the parade lap.
3. No boat is allowed to be in front of their designated pace boat.



4. You must trail 100' behind your pace boat.
5. Exception: If you are late to the mill but are able to trail with a class mill that is NOT your class, you may participate in the Parade Lap. You are NOT allowed to move in front of the Pace Boat to catch up to your respective class.
6. If you are late to the mill and all classes have started the parade lap, you are NOT permitted to join the Parade Lap late. You must stay in the designated milling area and wait for the mill to reconvene for the start of the race.
7. Any Bracket Boat that exceeds their bracketed speed, will be mark in accordance with Break-Out rules
8. If you choose to not partake in the parade lap and breakdown before the start of the race you will receive a DNS and receive last place points.
9. If you partake in the parade lap but break down at any point before the start of the race you will place better than that of a DNS entrant you did not make it out to the race course.
10. Any violation mentioned above during the Parade Lap may result in up to a 20 point penalty.

## REPLACEMENT HULL

1. A team is allowed to register a 2nd hull to race and maintain points going towards the National Championship.
2. A team MUST notify OPA of all hull replacement entry and/or re-entry 1 week prior to the event. (Event officially starts 4 days prior to race day.)
3. A team is allowed to bring back the original hull and maintain their existing points towards the National Standings.
  - a. example 1: Team registered Hull-A in Race 1. Hull-A sustained damage in Race 4. They run Hull-B in Race 5 & 6. Hull-A is re-entered and finishes out the season.
  - b. example 2: Team registered Hull-A in Race 1. Hull-A broke-down in testing at Race 5. They run Hull-B in Race 5. Hull-A is re-entered in Race 6 and finishes out the season.
4. Only 1 substitution/replacement will be permitted
5. A team may replace a hull at any time during the season for any reason (Damaged or new)
6. A replacement hull MUST fit the criteria to run within the class to maintain points

## HEAT RACES

1. Heat Races are when a particular class runs more than one time on one day of racing. When there is more than one day of racing and the class races on both days, it is NOT considered Heat Racing
2. If in the event "Heat Races" occur at any site, bonus points will ONLY be awarded as the final results are tabulated. Bonus points ARE NOT awarded per individual Heat Race.

## FINISHING POINTS

<u>ORDER</u>	<u>POINTS</u>	<u>ORDER</u>	<u>POINTS</u>	<u>ORDER</u>	<u>POINTS</u>	<u>ORDER</u>	<u>POINTS</u>
1	100	6	59	11	35	16	21
2	90	7	53	12	31	17	20
3	81	8	48	13	28	18	19
4	73	9	43	14	25	19	18
5	66	10	39	15	23	20	17

- FOR EACH BOAT THAT THE FINISHING BOAT DEFEATS, A BONUS POINT SHALL BE AWARDED.



- In the event that each class races 2 days at a regular season event, half-points will be awarded for each boat in each race. Teams will NOT receive BONUS POINTS for each day of racing, BONUS POINTS will only be added to the accumulative total for the event.
  - Tie-breaker for Spec Classes will be measured in:
    - ⊖ 1st - Penalty Infraction (ie: Boat A received a penalty for hitting a buoy on day one and Boat B finished both days of racing with NO penalties on both days of racing, Boat B places better than Boat A in the tie-breaker)
    - ⊖ 2nd - laps completed
    - ⊖ 3rd - combined 2 days of racing time
  - Tie-breaker for Bracket Classes will be measured in:
    - ⊖ 1st - Penalty Infraction (ie: Boat A finished both days of racing with NO penalties on both days of racing and Boat B received a penalty for jumping the start on day one, Boat A places better than Boat B in the tie-breaker)
    - ⊖ 2nd - Least amount of total Breakout duration
    - ⊖ 3rd - laps completed combined 2 days of racing time
- In the event a Special Event class and/or Exhibition class is ran at an event, no bonus points will be awarded towards the National Points standings.

#### FINISHING POINTS – WORLD CHAMPIONSHIP

<u>DAY 1</u>		<u>DAY 2</u>	
<u>ORDER</u>	<u>POINTS</u>	<u>ORDER</u>	<u>POINTS</u>
1	100	1	200
2	90	2	180
3	81	3	162
4	73	4	146
5	66	5	132
6	59	6	118
7	53	7	106
8	48	8	96
9	43	9	86
10	39	10	78
11	35	11	70
12	31	12	62
13	28	13	56
14	25	14	50
15	23	15	46
16	21	16	42
17	20	17	40
18	19	18	38
19	18	19	36
20	17	20	37

\*NO BONUS POINTS SHALL BE AWARDED AT A WORLD CHAMPIONSHIP EVENT

\*\* In the event that a race gets shortened due to inclement weather and a storm course is ran, either race on each day will carry the FULL points for each day.

\*\*\*In the event there is a tie after 2 days of racing, the finishing place holds a higher value on day 2 to decide the Tie-Breaker.

Example:

- Boat "A" finishes 1st on Day 1 and 4th on Day 2 for a total of 173 points.
- Boat "B" finishes 4th on Day 1 and 1st on Day 2 for a total of 173 points.
- Boat "C" finishes 3rd on Day 1 and 2nd on Day 2 for a total of 171 points.
- Boat "D" finishes 2nd on Day 1 and 3rd on Day 2 for a total of 171 points.

The finishing order will be:

- 1st - Boat "B"
- 2nd - Boat "A"
- 3rd - Boat "C"
- 4th - Boat "D"

Tie-breaker for Spec Classes will be measured in:

- 1st - Penalty Infraction (ie: Boat A received a penalty for hitting a buoy on day one and Boat B finished both days of racing with NO penalties on both days of racing, Boat B places better than Boat A in the tie-breaker)
- 2nd - laps completed
- 3rd - combined 2 days of racing time

Tie-breaker for Bracket Classes will be measured in:

- 1<sup>st</sup> - Penalty Infraction (ie: Boat A finished both days of racing with NO penalties on both days of racing and Boat B received a penalty for jumping the start on day one, Boat A places better than Boat B in the tie-breaker)
- 2<sup>nd</sup> - Least amount of total Breakout duration
- 3rd - laps completed combined 2 days of racing time

\*\*\*\*A boat MUST attempt to take the start to be awarded last place points if the boat is capable of running. If a person on the team is injured or takes ill and isn't capable of physically racing, the boat will be granted a DNS and receive last place points.

## **DROP RACE**

A drop race is when a team must drop points from one FULL race at the end of the season towards the National Championship standings. Attended and non-attended races hold an equal value. For the 2023 season there will be NO drop-race in effect towards the National Championships.

## **DOUBLE-POINTED RACE**

For the 2023 season there will be NO "Double-Pointed" races in effect towards the National Championships.

## **DIVISION RACES**

For the 2023 season there will be NO "Divisional Races" races. All races on the OPA Schedule hold that of the National Points status.

## **NATIONAL TITLE**

1. In order to qualify as an OPA National Champion, you MUST attend 75% of the races on the OPA Racing National circuit including the race deemed the "National Championships."
2. Divisional races do NOT qualify for National Points.
3. Special Event classes do NOT qualify for National Points

## HIGH POINTS TITLE

1. To receive points or be eligible for the High Points title the equipment must be registered for the full year.
2. A team with a substituted/replacement hull is NOT eligible for the High Points Title. This means that a team must start and end the season with the same hull.
3. In order to win the High Points title there must be a minimum of three boats registered in class at each race to qualify.
4. Points for the entire race season will be added together to determine the High Points Champion (this includes both national races & the world championship.)
5. In order to be a High Points Champions you must have attended 80% of the races for the season.
6. If for any reason OPA institutes a Drop-Race for the regular National season, a drop-race will NOT be honored towards the High Points Championship.
7. Entries that may result in a tie for the High Points Title will be resolved according to the following guidelines:
  - a. If there is a tie within the class:
    - i. The boat which has completed the greatest number of races for the season shall prevail
    - ii. In the event a tie still exists, the boat which has completed the greatest number of statute miles for the season shall prevail
    - iii. In the event a tie still exists; the boat with the fastest average speed for the entire season will be declared the winner.
    - iv. In the event a tie still exists, the boat that has placed the most consistently throughout the racing year. (i.e. 1st, 2nd, or 3rd) will be declared the winner.
  - b. If there is a tie for overall High Points Champion
    - i. The boat in the class with the highest amount of registrants will be declared the winner
    - ii. In the event a tie still exists, the boat that has placed the most consistently throughout the racing year, (i.e. 1st, 2nd, or 3rd) will be declared the winner.
    - iii. In the event a tie still exists, the boat that has completed the most required laps in class, will be declared the winner.
      1. i.e. a boat in Class 5 & STOCK VEE are tied. (These two classes do not complete in the same mileage on the race course.)
      2. The Class 5 boat ran the season with completing every lap at all the races
      3. The STOCK VEE boat ran the season but did not complete one of their races, and broke with 2 laps left to complete the race
      4. The Class 5 boat will be declared the winner
    - iv. In the event a tie still exists, the boat that has the least amount of infractions on the race course throughout the year will be the winner.
8. High Points Title holder will receive the “Stugots Cup”

## KILO RUNS

1. On an annual basis, OPA may elect to offer a Kilo speed record run for its registered members. Kilo Run boats will not be subject to any specific engine or drive requirements. The Kilo Run boats will be classified simply by type of hull and propulsion system. All Kilo Run boats must meet all aforementioned safety requirements for OPA race boats.

2. Kilo Runs will use a certified measured course and electronic timing lights as a means of measuring speed through the speed traps. No less than three on site referees will be present.
3. Kilo Run boats must make two passes through the speed traps in opposite directions within a ten minute time window. The speed of the two passes will then be averaged. There is no maximum allowable number of attempts. In order for a competitor to take an existing record away from another competitor, the speed must be at least .5 (½) mile per hour greater than the previous record.
4. These classes will not be limited to any speed or size of hull.
  - a. Vee hulls with a single outboard engine.
  - b. Vee hulls with a single inboard engine.
  - c. Vee hulls with twin inboard engines.
  - d. Vee hulls with twin outboard engines.
  - e. Catamaran hulls with a single inboard engine.
  - f. Catamaran hulls with twin inboard engines.
  - g. Catamaran hulls with twin outboard engines.

#### **MEDIA CREDENTIALS & REQUIREMENTS**

1. All media personnel must fill out all required forms for media passes.
2. All media personnel must sign the Liability of Waiver and every race in attendance in order to be allowed access in restricted areas.
3. A Media Pass does NOT grant ALL ACCESS at all sites.
4. Media personnel may NOT board a vessel unless assigned by an OPA staff member in registration.
5. Media personnel will NOT be granted permission on vessels deemed for medical/rescue nor Start/Finish.
6. Media personnel are NOT permitted in the area that is deemed Race Control.
7. Only an official OPA Media Pass or wristband will grant you entrance to areas that may require more than General Public Admission.
8. An OPA Media pass does NOT guarantee you access or entrance to VIP areas.
9. In consideration of promotional endeavors, media personnel share their commercial communication, advertising and broadcast rights to OPA Racing, LLC and do declare it as their lawful agent and representative regarding such rights. You will also agree, that OPA Racing LLC or its assignee's, on a non-exclusive basis, may use your name and likeness, including multimedia entailing video footage, webstream, photos, merchandising, etc taken by you.

#### **DRONES**

1. Race pit area, crane area and race course are a NO DRONE ZONE.

#### **GODFATHER CUP**

1. The "Godfather Cup" is a perpetual trophy Augie Pensa established that is awarded to an OPA member for excellence and sportsman like conduct throughout the year.
2. This perpetual trophy is awarded only once a year and announced/presented at the OPA Winter Awards Banquet.
3. Recipient of the "Godfather Cup" is awarded by votes from OPA Board Members
4. First "Godfather Cup" was awarded in 2010.

### **JIMMY WELSH TROPHY**

1. The "Jimmy Welsh Trophy" is a perpetual trophy that is awarded to an OPA crew member (non-racing member) for dedication & excellence throughout the year.
2. This perpetual trophy is awarded only once a year and announced/presented at the OPA Winter Awards Banquet.
3. Candidates can ONLY be submitted by the team owner.
4. Candidate MUST be a registered member with OPA for the season of their nomination.
5. Racing members are ineligible for nomination.
6. Recipient of the "Jimmy Welsh Trophy" is awarded by votes from OPA Board Members
7. A crew member from a team other than your own can be nominated/submitted.
8. Submission is done by email or in personal at registration.
9. This award can only be awarded to a person one time.
10. The first "Jimmy Welsh Trophy" was awarded at the 2014 Winter Awards for the 2013 Racing Season.

### **ROOKIE AWARD**

1. This is an award that will be presented to a Driver or Throttleman that has shown exceptional racing skills throughout their 1st year of offshore racing.
2. Recipient of the "Rookie Award" is awarded by votes from OPA Board Members
3. The "Rookie Award" will not be handed out on a yearly basis. It will only be honored to the Driver/Throttleman that showed excellence on the race course.
  - Examples
    - Rookie Driver/Throttleman takes 1st place and attended 70% of the races for the season
    - Rookie Driver/Throttleman wins National & World title

# **Code of Conduct**

A code of conduct is a set of rules outlining the social norms and rules and responsibilities of, or proper practices for, an individual, party or organization. Related concepts include ethical, honor, oral codes and religious laws.

1. Verbal abuse, physical assault or improper conduct toward a race official or another racer/crew member will result in a fine up to \$1000.00, disqualification from the event plus suspension from OPA Racing for one year. The decision of the President/OPA Referee shall be final.
2. Participation by owner, riding crewmember, crewmember or OPA race official in any wager or bet concerning the outcome of an OPA Racing event shall be suspended from OPA for a period of one year.
3. Any violation of the published OPA rules and regulations that is considered by the OPA President or OPA Vice-President to be of major importance, any action determined to be against the best interests of OPA Racing or unsportsmanlike conduct shall subject the offender to probation, loss of points, fines, disqualification from the event, suspension from OPA or any combination of the afore mentioned penalties at the discretion of the OPA President. (Unsportsmanlike conduct shall be defined as but not limited to: fighting, intentional aggressive or reckless driving on the race course, verbal abuse, public criticism, malicious or false accusations towards toward any OPA member; improper conduct toward any OPA member; and public criticism of OPA.) Note: Negative comments, criticism or threats of any kind, directed towards OPA Racing, its employees, officials or members on any public forum (public forums shall be defined as, but not limited to, newspapers, radio, television, public or private internet websites/forums/chat rooms, social media, etc.) shall be considered unsportsmanlike conduct. If a person is in violation of this behavior they can receive a fine up to \$1000.00, a deduction of up to 100 points and risk suspension from OPA Racing for one year.
4. OPA staff MUST refrain from public discussions in reference to organizational matters on social media and/or forums. This includes, but it not limited to: Rules, results, penalties, purses, etc. If a person is in violation of this behavior they risk suspension and/or termination.
5. OPA Staff members will not participate in leading any type of public "Roll Call". If a person is in violation of this behavior they risk suspension and/or termination.
6. In the event that a person is suspended due to Unsportsmanlike Conduct, no monies are returned nor credited to the following season.

# SUPER CAT – Rules

All OPA Super Cat Class boats must strictly adhere to the following specifications. They also must observe the rules specified under their specific class headings.

CLASS	NUMBERS	LENGTH	ENGINE TYPE	# of ENGINES	HULL
OPASC	Numeric Only	34'-42'	Inboard	Twin	Catamaran

1. Interpretation - If there is a disagreement or dispute about the OPA Technical Rules, the interpretation of OPA shall prevail. Decisions must be rendered in writing.
2. Availability - All boats as well as their parts must be (or must have been) for sale to the public at commercially reasonable prices.
3. Enforcement - To ensure competitive balance in all OPA Classes, OPA reserves the right to take whatever action necessary to enforce these rules. Boats and parts may be impounded for inspection purposes. OPA may prohibit the use of any part which can give a team an unfair advantage. Illegal parts become the property of OPA.
  - a. If the illegal part(s) are not surrendered as demanded by OPA, the boat, the boat owner and all riding crewmembers will be suspended until the illegal part(s) are under the control of OPA. It is the responsibility of the owner or his designated representative to take all actions necessary that only OPA legal parts are used.
4. Competitive Balance - OPA reserves the right to make adjustments at any time to these rules, or require changes to individual boats, if necessary to maintain competitive balance.
5. Minimum Weight Compliance - to be determined at the end of the race with the official OPA scale. The weight includes engines, residual fuel, drives, propellers, solid ballast and safety equipment as stated in the racing rules. Hull drain plugs must be removed, Ballast tanks must be empty. The weight does not include crew, lifejackets, crash helmets and bilge water.
6. Boats eligible for racing – As a general rule, all boats that were legal in the 2012 and 2013 racing seasons in OPA Offshore in classes comparable to OPA classes shall be considered legal at OPA. Call OPA office to verify.
7. Serial Number - Each hull must have an engraved serial number as required by law.
8. Canopies – Compliance with the latest guidelines developed by Lavin and respective boat builders. Boats built after 2005 must have a single canopy, seating two, side by side. The canopy must be located on the centerline of the boat
9. Safety hatch – Catamaran Boats built after 2005 must have a bottom escape hatch located in the tunnel of the boat. Existing boats do not have to be retrofitted.
10. Braking Systems - Not allowed.
11. Engine Compartment – Only engine compartments with ridged covers/hatches and a highly visible color underneath may be used.
  - a. All engine and fuel compartments need to be properly ventilated and meet all United States Coast Guard safety regulations.
12. Exclusivity - Exclusivity agreements for boats or any component used in racing are not allowed.
13. Exhaust - Unless noted otherwise, engine exhausts must be water cooled.
14. Water-jacketed manifolds must be employed from the engine outlet to the exit from the hull. The exhaust exit from the hull must be located so that the exhaust fumes cannot affect the crew.

15. Inspection Expense - Any unusual expenses incurred by OPA shall be the responsibility of the boat owner or his designee.
16. Fuel - Any additives whatsoever are strictly prohibited. Fuel will be tested. In the event that a competitor is found to have additives in the fuel, they will be disqualified from the event. All boats are required to use pump grade fuel with a maximum octane rating of 93.
  - a. Electric fuel pump shutoff - must shut off when the kill switch is engaged.
  - b. Through deck fuel fills - as specified by United States Coast Guard regulations must be used. All fuel must be carried in secure tanks that are vented overboard. Transfer of fuel is not allowed during a race, except via properly installed fuel lines that supply fuel to the engines. Fuel tanks and fills must be grounded.
17. Handrails - Hand rails (max. height of 6"), or hand holes, extending fore and aft must be fitted. Cables and lifelines are not allowed.
18. Approval of Equipment -
  - a. Boats and engines must be approved by the OPA Technical Committee. All hulls must be produced from a dedicated mold. One of a kind boats are not allowed. All changes to the dedicated mold must be approved by OPA.
  - b. Engines must be based on an automotive block sold through normal distribution channels and available to the general public. Gasoline type engines only.
19. Hull and Deck Measurement - All race boats shall be measured from the top of the bow to the top of the transom on the centerline of the hull with the keel level to the ground. Swim platforms and any parts attached to the transom are not to be included in the measurement.
20. Hull Extensions – No extensions to meet minimum length.
21. Single Point Lifting Harness - required for all boats.
22. Non-Skid – required for walking on deck surfaces from aft and around cockpit.
23. Aero-dynamic devices (such as wings or moveable deck surfaces) – not allowed.
24. Trim Tabs, Tunnel Tabs - either fixed or adjustable - legal.
25. Weight -
  - a. Post Race - All boats must report to the official OPA scale as required.
  - b. Penalties – Under weight boats will receive last place points. No scale tolerance.
26. Air Conditioning -
  - a. Air Conditioning Allowed - Air Conditioning is allowed in all OPA Classes utilizing canopies or enclosed cockpits. An automotive type air conditioning compressor must be used. Only the driver compartment may be cooled.
  - b. No cooling allowed - Neither fuel or engine compartments may be cooled in any manner through the air conditioning system.
27. Anti stuff bow planes - Not allowed.
28. Propellers -
  - a. Propellers must be of the type approved by OPA.
  - b. Manufactures may apply to OPA for approval.
  - c. Propellers must be manufactured from stainless steel castings. No forged, billet, or other propeller types. No exotic alloys such as Magnesium or titanium are allowed.
  - d. Propellers may be modified. Blue printing, lab finishing, polishing, grinding, welding, machining etc. are allowed. All propellers are limited to a minimum thickness required for prop integrity. Propellers must be intended for sale to the public at commercially reasonable prices. Propellers must be available to all racers within 4 weeks.
  - e. Propellers thickness specifications for OPA Super Cat are approved. Refer to table SC-01.



**PROPELLER INSPECTION PROCEDURE AND PROPELLER SPECIFICATIONS (SC-01)**

ITEM	DESCRIPTION
1	Base
2	Lower Support Cone
3	Upper Support Cone
4	Post
5	Arm
6	Guide Block
7	Pen Holder Tube
8	Marking Pen (Sharpie w/ tip modified to mark a steep angle)

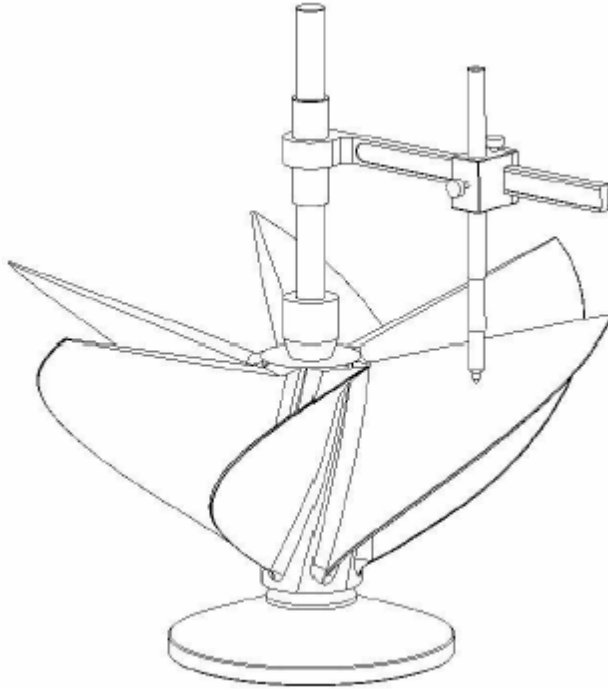
**MERCURY RACING VI SSM CLEAVER PROPELLER MINIMUM THICKNESSES**

Table 1. Inspection Radii

Propeller Diameter (inches)	Inspection Radii (inches)		
	Root	Middle	Tip
15	2	4 1/4	6 1/2
15 1/4	2	4 5/16	6 5/8
15 1/2	2	4 3/8	6 3/4
15 3/4	2	4 7/16	6 7/8
16	2	4 1/2	7
16 1/4	2	4 9/16	7 1/8
16 1/2	2	4 5/8	7 1/4
16 3/4	2	4 11/16	7 3/8
17	2	4 3/4	7 1/2
17 1/4	2	4 13/16	7 5/8
17 1/2	2	4 7/8	7 3/4
17 3/4	2	4 15/16	7 7/8
18	2	5	8

**Table 2. OPA Super Cat VI SSM Propeller Blade Thicknesses  
(Minimum allowed at each measuring point)**

Inspection Radius	Leading Edge		Trailing Edge	
	Distance from Edge (in)	Minimum Thickness (in)	Distance from Edge (in)	Minimum Thickness (in)
Root	1 3/8	0.283	1 1/2	0.475
Middle	1 1/2	0.182	1 1/2	0.302
Tip	1 11/16	0.115	1	0.130

29. No forced air induction: The air track running from an external opening to the flame arrestor or carburetor may not be completely sealed. Likewise, sealing or pressurizing of the engine compartment is prohibited. Fresh air ducting is not allowed to be closer than 2" to the engine and/or flame arrestor. The engine compartment vent area must be equal to, or larger than the area or the air scoop(s).
30. Ballast tanks NOT allowed: Ballast tanks are not allowed in OPASC. Transfer of any ballast (including fuel) is prohibited in any manner while under way or remotely. Once on the race course, racers may stop and physically move weight bags manually if it is safe to do so.
31. Engine hatches: May be with or without scoops. Competitors may not raise their engine hatches from the time they have completed the race until the boat is presented for inspection to an OPA Inspector. During the race, engine hatches can only be raised for emergency repairs. Violators shall be disqualified unless the OPA inspection team can verify the case of emergency.

# SUPER CAT Class - Technical Rules

All OPA Super Cat (OPASC) Class boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OPA classes.

## BOAT SPECIFICATIONS

Hull type:	Catamaran
Length minimum:	35' 0"
Length maximum:	42' 0"
Beam maximum:	12'
Tunnel width maximum (measured at keel):	66"
Height minimum (keel to deck):	48"
Weight minimum:	9500 LBS
Weight minimum for boat w/ Mercury 800	10,150 LBS

## ENGINE SPECIFICATIONS

### 1. General

Displacement, maximum	510 CID
Displacement, minimum	495 CID
Compression ratio, maximum	9.5:1 as determined by OPA approved whistler device. At its discretion, OPA may require cylinder head removal for actual cc measurement.
Engine Rotation	Standard rotation only. Counter rotation engines not allowed

### 2. Engine Blocks

Cast Iron	Only cast iron blocks are approved. Billet main caps are approved.
GM Big Block Chevy type	Blocks with 9.8" or 10.2" deck heights approved
GM Big Block Chevy type	Blocks manufactured by General Motors, World Products (Merlin), and Dart Machine are approved.
Other Blocks	Must be approved by OPA
Cylinder Sleeves	Allowed for repair purposes
Cylinder bore centers Maximum bore size	Must remain in OEM location. 4.605"
Mercury Racing 800 Competition Engines	The Mercury Racing 800 Competition engine as manufactured and Factory sealed, is legal in the Super Cat Class. Weight Adjustments, if needed, will be made at the discretion of the Referee in concert with the current registered class participants. Weight increase is set at 650 lbs. for existing boat.

### 3. Internal Components:

Materials allowed	Crankshaft, connecting rods, pushrods and wrist pins must be made of steel.
Materials, not allowed	Titanium or any other materials
Wrist pins	Minimum .990" inch diameter
Pistons, allowed	Minimum .990" inch diameter
Pistons, not allowed	Titanium, or any other exotic material
Crankshaft Stroke	Maximum stroke is 4.00 inches. There is no minimum stroke. Maximum Bore is 4.605 inches.
Single plane crankshafts	Not allowed. Crankshaft throws must be timed according to OEM specifications

#### 4. Cylinder Heads

Cylinder heads	Must remain in OEM location.
Approved heads	Big block Chevrolet Brodix # SP BB – 2 PLUS as cast and provided by Brodix with the following allowed modifications. No other head is allowed.
CNC	Spec heads may have CNC or hand shaped chambers and Intake port may be matched not to exceed 3/4 inch measured from the intake manifold surface.
Blending	Grinding or blending of CNC valve work or CNC chamber work is allowed. Blending not to extend more than 1/2" inch from the base of the seat insert into the ports.
Grinding and Polishing	Except in the combustion chamber and the areas immediately adjacent to the valve seat, no grinding or polishing allowed anywhere.
Resizing of ports	No change or alteration of the shape or size of the ports or runners allowed. Addition of any material to ports, bowls, or runners is prohibited.
Cylinder head repairs	All major repairs that require welding must be performed by Brodix
Milling	No angle milling of head surface
Head bolts	Additional head bolts legal. Two head bolts per cylinder head are legal installed through bosses in block in the lifter valley to the underside of the head.

#### 5. Valve System

Number of valves	Two valves per cylinder operated by pushrods. One camshaft located in the block, OEM location.
Intake valves, allowed	Stainless steel, or titanium
Intake valves, not allowed	Pneumatic, hollow stem, ceramic valves
Exhaust valves, allowed	Stainless steel, Super Alloy, or Inconel
Exhaust valves, not allowed	Titanium, any other
Valve stem diameter, minimum	11/32"
Variable cam timing	Not Allowed
Maximum gross cam lift	0.720 inch, zero lash, measured at the valve
Camshaft	Must remain in OEM location
Lifter Bores	May not be changed from OEM location
Sleeves	May not be changed from OEM location
Lifters	Pushrod must ride in center of lifter. No offset lifters.
Pushrods	Must remain in OEM location
Valve Seats and Guides	Must remain as manufactured and in OEM positions.
Valve Guides	Not to be cut down, shortened, tapered, or reshaped
Valve Angle	As manufactured
Valve Head diameter, maximum	Intake 2.300", exhaust 1.900"
Valve spring cooling	Allowed with internal engine oil
Offset head guides	Not allowed. Head mounting location may not be altered.
Spring Retainers	Except as stated above, any material and design may be used
Rocker Arms	Except as stated above, any type or design legal
Rocker stud girdle	Legal

#### 6. Intake Manifold

Approved intake manifolds	Brodix part numbers HV 2001-A and HV 2005-A. Other brands are also allowed as cast from Edelbrock, World, and Dart. Fabricated intake manifolds are not allowed.
Modifications	Not allowed
Welding	Not allowed
Porting	Allowed for 1 1/2 " closest to the cylinder head
Carburetor spacers	Maximum 2.5"
Intake Manifold	90 degree angle between deck surface and intake manifold surface not to be altered.

## 7. Induction System

Number	Only one carburetor per engine
Approved type	Any Holley "Dominator" 4500 series carburetor
Fuel injection	Not allowed
Blueprinting	Allowed

## 8. Exhaust System

Materials	Cast or fabricated allowed only
Length	Maximum 15-1/2" individual primary runner length, measured at centers of any runner, cylinder head port to common collector. -OR- CMI "Sweeper" style header provided as OEM header on Mercury Racing 525EFI, 600SCI, and 700SCI is also allowed.
Length to include	Any adapters, or wedges from the exhaust ports to the common exhaust collector
Shape	Any common collector shape allowed
Exhaust pipes	"Y" and "H" allowed
Cooling	Exhaust system from engine outlet to point of exit from hull or deck must be water-cooled by water jackets

## 9. Transmissions

Single speed	Allowed. Must be capable of neutral, forward and reverse
Multi speed	Not Allowed
Power	Must be derived from main engines

## 10. Lubrication

Wet Sump	Wet sumping and internal oil pumps allowed
Dry Sump	External oil pumps / dry sumping allowed. Not more than three scavenging pump sections allowed.
Filter screens	Allowed. May not restrict the return of oil to the crankcase. Flush mounted only.
Intake valley	As cast only. No damming, no raised sections, no alterations whatsoever. All oil must return internally through original passages. Returning oil externally to the crankcase oil pan by any method is prohibited.

## 11. Ignition

Distributor	Must remain in OEM location.
Spark distribution	Distributor rotor / cap only
Electronic ignition	Allowed
Crank triggered ignition	Not Allowed
Belt drive ignition	Not Allowed
Coils	Limit one ignition coil per engine.
Back-up ignition	Are NOT allowed
Rev limiter – Carburetor Motors	RPM limited to 7000 RPM. A G2 Pro Data Logger must be installed and maintained to monitor the RPM level during the race. The RPM level during the entire race must be verifiable on the Data Logger by the event inspectors during post- race inspection. The wiring harness of the system must be readily accessible for inspection by event inspectors. No dual systems or ignition components allowed. The RPM level during the entire race must be variable on the data logger by the OPA inspector upon completion of the race. If the Data Logger does not read (DNR), you will be disqualified and receive last place points.

Rev limiter – 800 Mercury Racing	Rev limiter: RPM limited to 7000 RPM. A G2X Pro Data Logger or AIM must be installed and maintained to monitor the RPM level during the race. The RPM level during the entire race must be verifiable on the Data Logger by the event inspectors during post-race inspection. The wiring harness of the system must be readily accessible for inspection by event inspectors. No dual systems or ignition components allowed. The RPM level during the entire race must be verifiable on the data logger by the APBA inspector upon completion of the race.
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## 12. Outdrive

Approved type	Mercury Racing SSM VI The skeg thickness must comply with the inspection template.
Dropdown box	Not allowed
Shaft drives	Not allowed
Drive modifications	Not allowed-Must remain internally as produced by Mercury racing using all gears and shafts.
Gear reduction, SSM VI	1.61:1 (1.607:1) is the only approved gear ratio for OPA Super Cat
Propeller aerators	Allowed

## 13. SUPERCAT 800 MERCURY RACING HOMOLOGATION

Displacement	555 cid / 9,089 cc
Compression Ratio	9.8:1
Cylinder block	Mercury Racing 8M0124391 or equivalent
Block material	Cast aluminum, A356
Cylinder liner	NICOM Plated
Wrist pin diameter	1.024" / 26 mm
Crankshaft stroke	4.212" / 107 mm
Cylinder heads	Mercury Racing 8M0101267 or equivalent
Valvetrain	4 valve per cylinder, DOHC with sliding finger follower
Valve stem diameter	.309" / 7.85 mm
Cam lift, Intake	.467" / 11.87 mm
Cam lift, Exhaust	.473" / 12.00 mm
Valve head diameter, Intake	1.896" / 48.15 mm
Valve head diameter, Exhaust	1.502" / 38.15 mm
Intake manifold	Mercury Racing 8M0121556 or equivalent
Induction	EFI, 2 injectors per cylinder
Ignition	PCM controlled, 1 coil per cylinder
Rev limit	7000 rpm

# STOCK VEE – Technical Rules

The STOCK VEE class is designed for racers that want the safety of being in an enclosed canopy while enjoying deck to deck competition against similar boats with identical power. OPA would like to see this class grow and thrive as it's an excellent step up for our current teams racing in the speed bracket classes. OPA's goal is to stabilize and grow the STOCK VEE class by enforcing a set of rules that will allow multiple hull manufactures to compete on a level playing field. In order to achieve our goals, OPA will use several methods to achieve Parity in the class which will allow older hulls to remain competitive against newer hulls that might be more efficient in a straight line.

**If anything is not listed in these technical class rules, you should assume the answer is NO.** OPA Officials may interpret these rules, based on circumstances at the time.

## ENGINE BUILD REQUIREMENTS

1. STOCK VEE team can have their engine rebuilt by any builder of their choice. OPA MUST be notified in advance
2. Maximum cubic inch limitation of 510 cu in
3. All internal parts must remain as OEM spec.
  - a. For example, if a team uses an aftermarket crankshaft, it must meet OEM spec as far as weight, stroke, journal size, external balance, keyway location etc.
  - b. Rods: OEM 525 or Manley #14060L series H- Beam with 6.135 length.
  - c. Pistons: 30 over part #SRP281919
  - d. Cam Shaft: 525Mercury OEM part # or Teague part #16HR00004-AP
  - e. Lifters: Remain STOCK VEE diameter of .843", dog bone or tie bar are allowed NO SOLID LIFTERS
4. Crankshafts: Manley part #190170 or OEM 525 crankshaft with a 4 inch stroke
5. Block Chevy Gen V or VI block
6. Materials including Crankshaft, flywheel, connecting rods, pushrods and wrist pins must be made of steel. Titanium or other materials are NOT ALLOWED
7. No alterations to the cylinder heads will be allowed. surfacing to the deck of the head is allowed, but the maximum compression ratio of 9.0:1. NO PORTING ALLOWED
8. Fuel system and intake plenum must remain as produced by Mercury Marine.

## COMPUTER REGULATIONS

1. All ECU's must be shipped to OPA official to be checked and calibrated by Mark Boos of Precision Marine before the start of each race season.
2. NO MODIFICATIONS TO SPEC. ECU'S. OPA reserves the right to swap ECU's with any boat at any time. (Team will be allowed time to test new ECU to make sure it works properly.)
3. Each boat MUST have 2 Boos Certified ECUs
4. At the end of each race the Top 3 finishers must forfeit ECU for Calibration. In addition, a random finisher will be picked to also forfeit their ECU for Calibration. ECUs will be returned to owner once calibration has been completed

## DATA LOGGER

1. All STOCK V boats are required to have a 5600 RPM limit and a G2X Data Logger or equivalent Data Logger and must be verified by inspector upon completion of race.
2. If the Data Logger does not read (DNR), you will be disqualified and receive last place points.

## HULL SPECIFICATIONS

All STOCK VEE teams must adhere to the following specifications along with the general rules pertaining to all OPA classes.

1. Any new boat racing with OPA for the first time must notify OPA at least 60 days prior to the race they plan to attend. The boat will have to pass OPA inspection and sea trials prior to qualification to race with OPA. All bottom modifications allowed, but Parity will be addressed at this time and throughout the season for all teams.
2. Extensions to the deck of the boat both fore and aft are allowed. Any additions will be included in the overall measurement of the hull.
3. Hull extensions may not be used to meet minimum length.

## WEIGHTS and DIMENSIONS

Hull type: Monohull

Length minimum 26' 0"

Length maximum – Bow to Transom – 30' 0"

Length maximum Overall: 32' 0"

Beam minimum: 6' 6"

Beam maximum: 8' 6"

Number of engines: 1

Single Step Hulls Weight Minimum, Bravo, Imco drive 4750 lbs

Twin Step Hulls Weight Minimum, Bravo, Imco drive 5000 lbs at first race – adjusted for parity by OPA.

Triple Step Hulls Weight Minimum, Bravo, Imco drive 5250 lbs at first race- adjusted for parity by OPA.

Penalties: Under Weight: This will result in a last place finish for the day. For Multiple Offenders: Place will be determined by amount of weight under. No scale tolerance

**Canopies:** All boats must be equipped with canopy safety systems, including canopy hatches (lids) fitted with positive open and positive close mechanisms, side by side only. No inline seating allowed. Five point restraint harness systems and on-board air systems are required.

**Single Point Lifting Harness:** Required for all boats

**Braking Systems:** Not allowed

## Grandfathered Boat(s)

- i. 27' Activator hull # ----- is approved for competition at 4550 pounds.
- ii. 30' Lavey Craft hull #----- which is a twin stepped hull is approved for competition at 4750 pounds.
- iii. 32 Bad Boy hull # ----- . OPA has amended the length rule in the STOCK VEE class to allow the 32 ft Bad Boy, hull # ----- to compete in the STOCK VEE class indefinitely



**Aero-dynamic Devices** (such as wings or moveable deck surfaces) – not allowed. Anti Stuff Bow Planes - not allowed.

**Non-Skid** – All boats must be equipped with non-skid material on the deck from the transom up to and around the canopy.

**Engine Compartment** – Only engine compartments with ridged covers/hatches and a highly visible color underneath may be used.

**Exclusivity** - Exclusivity agreements for boats or any component used in racing are not allowed.

**Handrails** - Hand rails (max. height of 6"), or hand holes, extending fore and aft must be fitted to deck of hull. Cables and lifelines are not approved.

**OPA Approved Inboard Production Race Engine:** OPA approved engine is the Mercury 525. The engine may be allowed with the original Mercury seal (contact the OPA president for approval). All rebuilds MUST be sealed my OPA Racing.

**NO MODS TO STOCK ECU.** OPA Reserves the right to swap ECUs with any boat at any time. (Team will be allowed time to test new ECU to make sure it works properly.)

**Whistle Test** must measure a max 9.0:1 compression ratio.

- No aluminum **flywheels**
- All **sensors** must remain OEM
- RPMS are limited at 5450 for Mercury Engines

**No Forced Air Induction:** The air track running from an external opening to the flame arrestor may not be completely sealed. Likewise, sealing or pressurizing of the engine compartment or engine air intake is prohibited. Fresh air ducting is not allowed to be closer than 2" in any direction to the engine and/or flame arrestor. Stock Mercury Racing Flame Arrestor or Stock HP3 arrestor must be complete and in place , (no holes drilled)

**OPA Approved Exhaust System Specifications:** Engine Allowed Exhaust Manifolds 525EFI

ENGINE	ALLOWED EXHAUST MANIFOLDS
525 EFI	Mercury Style CMI Header, Only the CMI sport tubes are legal for competition (part # 13012), CMI straight back sport tube (part # 13020), CMI Gen-X Header or Innovation Marine Tractor Style Header The header measurement from the header flange top that bolts to the cylinder head, to the header collector flange bottom is 7.5"

Exhaust tips	Any elbow top, tail pipe or exhaust tips
Tail pipes	Any length – Individual tail pipes required, H & Y tail pipes not allowed
Tail pipe exit	Through gunnel, deck, or transom, not to extend more than 12" beyond transom
Cooling	Water Jacket
Tail pipe exit	Allowed

**Rear engine mounts:** are allowed

**Jack Shafts:** are allowed , max, dist, 15”

**Cooling Water:** Cooling water must come through outdrive pickups, the use of a hull pick up is also permitted, the drive pick ups must stay open. The cooling water flow to the exhaust system must remain in production configuration. Engine cooling water must travel from the exhaust elbow or tail pipe into the exhaust, or to a thru hull fitting. Water may not be diverted for exit elsewhere. OPA may approve other exhaust installation hardware if required to fill ballast tank

**Ballast Tanks:** Are approved.

**Fuel Testing:** ALL STOCK VEE boats must install a “T” or other suitable fitting in the fuel system of the engine. The “T” or other suitable fitting shall easily facilitate fuel sampling before, during or after a race. All STOCK VEE class boats may purchase fuel (standard unleaded pump gasoline) from any retail public fueling stations or marinas. However, OPA reserves the right to specify one or more “outside” fuel suppliers at each race site in an effort to minimize confusion surrounding fuel testing. Competitors may not supplement<sup>1</sup> standard unleaded pump gasoline with any additives that will increase the oxygen content, octane rating or enhance the power output of the engine in any way. Standard unleaded pump gasoline without additives is defined as unleaded fuel that meets the standards of petroleum based fuel as defined by American Society for Testing and Materials (ASTM), designation:

**D4814, with the following clarifications**

1. Specific gravity must be  $\geq .715$  and  $\leq .765$  at 60 degrees F.
2. Maximum oxygen content is limited to 4.0% by weight.
3. The only allowable oxygenates are ether, alcohols or other current EPA allowed oxygenators, as listed and characterized for oxygen mass fraction in ASTM D4814.
4. The ethanol content must be less than 25% by volume.
5. Oxygen bearing compounds are not allowed.
6. Epoxides (i.e. propylene oxide) will not be considered as ether.
7. Nitrogen bearing compounds are not allowed.
8. Lubrication additives are permitted, provided the resulting mixture meets all other requirements of these rules.
9. Unleaded gasoline may not be mixed with any commercial race fuel regardless of the source.
10. The following substances (including but not necessarily limited to) are limited in amount by law or not allowed in standard unleaded pump gasoline: Acrylonitrile, Aminodiphenyl, Aniline, Benzene, Benzidine, Beryllium compounds, Bromine compounds, Chloromethyl ether, Chlorine compounds, Ethylene oxide, Hydrazine compounds, Manganese compounds, Nitrobenzene, Nitrochlorobenzene, Nitrogen compounds, Nitrodiphenyl, Propylene oxide and Tert Butyl toluene. If concentrations of any of these substances greater than that allowed by the current EPA upper limits or any substances not listed as a part of commercial gasoline as defined by ASTM D4814 are found in a fuel sample, the competitor will be disqualified from the race and fined \$1,000.00. A second offense will result in a one year suspension. A third offense will result in a lifetime ban from OPA.
11. The use of compressed nitrous oxide as an engine performance enhancing product is prohibited.

## Accepted Methods of Fuel Testing

1. Digitron Testing
2. Cerium Nitrate Reagent Testing
3. Water Solubility Test
4. Gas Chromatography (performed by an independent outside laboratory)
5. Any other method as recommended by independent outside laboratory or described in ASTM D4814

\*NOTE: Fuel contents are protestable. However, the loser in the protest shall be responsible for all outside laboratory expenses associated with the protest.

<sup>1</sup> *“supplement” is defined as physically adding (pouring) any substance other than standard unleaded gasoline into the boat’s fuel tank or introducing any substance other than standard unleaded pump gasoline into the fuel system.*

**ECMs:** The chief inspector has the right to impound any ECM unit at any time. The chief Inspector may replace a competitor’s ECM at any time with a new fully functional unit.

**Data Logger:** The OPA reserves the right to install a sealed data logger on any competitor’s engine prior to a race. The data logger will be used to assure that the competitor’s engine complies with the engine rules by measuring engine RPM and/or engine spark timing. The OPA inspector will remove the data logger after the race and compare the recorded data to the manufacturer’s specifications. Any engine found out of specification will be disqualified. If the Data Logger does not read (DNR), you will be disqualified and receive last place points.

**Routine Maintenance:** All routine/owner maintenance is limited to: engine oil change, spark plug change, spark plug cable change, replacement of fuel pressure regulator-must be set at factory specifications, engine timing setting, valve lash adjustment and replacement of valve springs and rockers, (valve adjustments must be set to factory specification, using only 1.7 ratio rocker arms . These services must be performed with the procedures and the original parts as outlined in the approved engine service manuals.

**Approved Outdrives:** Outdrives are required to be standard production units. A production unit is defined as one that is available to the general public for recreational use, and is produced in quantities of 25, or more units per year. Any engine or outdrive manufacturer meeting the minimum quantity production criteria may apply to the Technical Committee for approval of their product for competition. Approval is subject to production quantity verification and determination that no competitive advantage will be realized.

### Approved Outdrives:

MerCruiser Bravo One, Must comply with applicable rules

MerCruiser Bravo X, XZ, Must comply with applicable rules

MerCruiser Bravo XR, Must comply with applicable rules

MerCruiser Bravo XR Sportmaster Must comply with applicable rules

MerCruiser Bravo XR Short Sportmaster Must comply with applicable rules

IMCO SC and SCX Must comply with applicable rules

**SKEGS MAY NOT BE SANDED OR THINNED IN ANY WAY.**

Gear cases may not be blue printed.

There shall be a minus 3/16" tolerance on skeg length.

**Approved Drive Ratios:** All STOCK VEE boats shall be restricted to 1.50:1 final drive ratio.

**Gear tooth count**

XR Upper	19/16
XR Lower	15/19
XZ Upper	32/27
XZ Lower	15/19

**Transom Assembly:** All Bravo Style Outdrives Mercruiser Bravo, Bravo HP, IMCO or MerCruiser ITS

Drive modifications: Allowed only to increase reliability. Examples: One-piece propeller shafts, heavy-duty bearing carriers, etc. Parts must be available to all racers at reasonable commercial prices. Water intake slots on the gearcase CAN NOT be closed by any means. The original shape of the gearcase is not to be altered. Other modifications to the outdrive(s) or its components require written OPA approval.

**Transmissions:** Transmissions may not be used.

**Standoff boxes:** Permitted to a maximum of 12 inches. All bottom modifications allowed and each standoff box must be type approved by OPA.

**X- dimension:** Maximum X-dimension is one half inch below the bottom of the boat when checked with the straight edge from the lowest point of the aft running surface directly in front of the drive and behind the last step of the hull (notches and rockers excluded) For purposes of measurement, the centerline of the propeller shaft must be parallel with the aft running surface.

**Drive Case Housings:** Upper and lower drive case housings need to remain as manufactured. Housings may not be modified. An approved spacer between the upper and lower drive housing can be utilized. Spacer may not exceed 3". Water pickup slots can be made longer or shorter, on IMCO lower to control water pressure. Mercury Sport Master lower unit may close off two outside slots, while maintaining center slot to control water pressure to engine.

**Power Steering Pumps:** Stock power steering pumps can be replaced. Pumps must be located in the original OEM location on the engine.

**Approved Propellers:** Any cast stainless steel propeller with six or less bladed manufactured by Mercury, Hydromotive, Throttle Up, Herring and Chopper are legal. MAX PROP PITCH – 31" MAX PROP DIAMETER – 15 5/8".

Propellers must be intended for sale to the public at commercially reasonable prices. Over the hub propellers are NOT permitted.

**Steering – External:** Hydraulic steering is required. The original power steering pump or after-market pump must be used on all boats.

**Ballast:** All movable ballast must be fixed in place at the beginning of a race. No movable ballast weight may be transferred or relocated while the boat is under way. Ballast water tanks are allowed and may be filled and emptied during the race.

**Any boat to compete in STOCK VEE must have the following, with no exceptions and ZERO tolerance:**

1. Current 2022 OPA official seals on motor.
2. Current 2022 updated official Precision Marine computer.
3. Must WHISTLE BLOW below 9.0:1 at any given time **ZERO TOLERANCE**
4. Must meet all rules of STOCK VEE at all time with no exceptions

If any boat is to be found outside of any and all rules stated, this boat will not be allowed to take the green flag in that race. If a boat is found outside of any and all rules after a race their point standing, trophy and prize purse will be revoked. This boat will be allowed to run in class 4 until all violations are resolved.

# MODIFIED VEE – Technical Rules

The Modified Vee class is designed for racers that want the safety of being in an enclosed canopy while enjoying deck to deck competition against similar boats with identical power. The rules which follow are safety and competition based. The formula endeavors to keep competition close and exciting, principally by restricting technology changes and limiting the differences between racing equipment from team to team in order to ensure maximum excitement and enjoyment for racers and fans alike. The Modified Vee class will also be known and referred as MV.

## Technical Rules – Modified Vee Class (MV)

If anything is not listed in these technical class rules, you should assume the answer is NO.

OPA Officials may interpret these rules, based on circumstances at the time.

Rule Changes to Maintain Competitive Balance: OPA recognizes that there are considerable differences in boat design; accordingly, OPA reserves the right to make adjustments to boats, engines, drives or propellers, etc., individually or categorically, to maintain competitive balance based upon experience in race conditions.

**Hull Specifications:** All Modified Vee (MV) teams must adhere to the following specifications along with the general rules pertaining to all OPA classes.

1. Any new boat racing with OPA for the first time must notify OPA at least 60 days prior to the race they plan to attend. The boat will have to pass OPA inspection and sea trials prior to qualification to race with OPA. All bottom modifications allowed, but Parity will be addressed at this time and throughout the season for all teams.
2. Extensions to the deck of the boat both fore and aft are allowed. Any additions will be included in the overall measurement of the hull.
3. Hull extensions may not be used to meet minimum length.

## Weights and Dimensions:

Hull type: Monohull

Length minimum 26'0"

Length maximum – Bow to Transom – 32' 0"

Beam maximum: 8' 6" (The maximum beam shall be no more than 2' wider than the beam measured at the transom chine to chine)

Number of engines: 1

Weight Minimum: 4750 lbs

**Hull Steps** - are allowed and must be vented to the atmosphere either internally or externally.

- Single Step Hulls Weight minimum, Bravo, Imco drive 4750 lbs
- Twin Step Hulls Weight Minimum, Bravo, Imco drive 5000 lbs at first race – adjusted for parity by OPA.
- Triple Step Hulls Weight Minimum, Bravo. Imco drive 5250 lbs at first race- adjusted for parity by OPA.

**Penalties:**

- Under Weight: This will result in a last place finish for the day.
- For Multiple Offenders: Place will be determined by amount of weight under. No scale tolerance.

**Grandfathered Boat(s)**

- a. 29' Outerlimits hull #----- which is a triple stepped hull is approved for competition at 5000 pounds.
- b. 32' Phantom/JRA hulls prior to 2020 #----- which is a twin stepped hull is approved for competition at 4750 pounds.
- c. 27' Activator hull # ----- is approved for competition at 4550 pounds.

**Minimum Weight Measurement**

Will be determined at the end of the race. The weight will be an all-up weight including engines, residual fuel, drives, propellers, fixed ballast (i.e. that which is used from start through completion of race), all hull drain plugs removed, and safety equipment as stated in the racing rules. The following is not included in the all-up weight: crew, lifejackets, crash helmets, bilge water and lifting harness. A single point lifting harness is mandatory for all boats. It shall be the responsibility of the crew to insure that the single point lifting system harness positions the race boat such as to drain all onboard ballast tanks per the rule.

**Canopies:** All boats must be equipped with canopy safety systems, including canopy hatches (lids) fitted with positive open and positive close mechanisms, side by side only. No inline seating allowed. Five point restraint harness systems and on-board air systems are required. No boat will be permitted to participate without a canopy. OPA has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

**Single Point Lifting Harness:** Required for all boats

**Braking Systems:** Not allowed

**Aero-dynamic Devices** (such as wings or moveable deck surfaces) – not allowed. Anti Stuff Bow Planes - not allowed.

**Non-Skid** – All boats must be equipped with non-skid material on the deck from the transom up to and around the canopy.

**Engine Compartment** – Only engine compartments with ridged covers/hatches and a highly visible color underneath may be used.

**Exclusivity** - Exclusivity agreements for boats or any component used in racing are not allowed.

**Handrails** - Hand rails (max. height of 6"), or hand holes, extending fore and aft must be fitted to deck of hull. Cables and lifelines are not approved.

## OPA Approved Inboard Production Race Engine:

### ENGINE SPECIFICATIONS

#### Approved Inboard Engines

1. Mercury Racing 525 EFI Motor, with its OEM Stock Specifications, with the following exceptions a maximum cubic inch limitation of 510 Cubic Inches and a maximum RPM limitation of **5600** RPMS.
2. The MV Class 510 CID Motor with the following specifications:
  - a. Displacement: Maximum 510 CID, with a 4" stroke crankshaft only. Crankshaft throws must be in accordance with OEM specifications
  - b. Compression Ratio: Maximum compression ratio of 9.0:1.
  - c. CAM: Any hydraulic roller cam or Solid Cam with a maximum intake lift of .610 inch and exhaust lift of .632 inch measured at the valve with zero lash is the only cam allowed, with an OEM stock gear timing chain, no belt driven timing chain systems are allowed. Variable cam timing not allowed.
  - d. Block: Chevrolet designed blocks, with their OEM specifications, NO MODIFICATIONS, manufactured by General Motors, World Products and Dart must be approved by OPA.
  - e. Materials: Crankshaft, Flywheel, connecting rods, pushrods, and wrist pins must be made of steel. Titanium or other materials are not allowed.
  - f. Heads: The approved cylinder head is the Dart Pro I Head, Part Number 19100010M (bare head) or 19100112M (complete head with valves and springs) with their stock OEM specifications, no modifications allowed. 1.7 ratio rocker arms on stud mounted rocker arm shafts only. The head serial numbers must remain on the head and may not be defaced or altered. The Stock Mercury 525 OEM Head with its OEM specifications and no modifications may be used.
  - g. Intake Manifold: Any stock cast intake manifold with a Holly Carburetor 4150 style (size) base may be used. No fabricated or tunnel ram type manifolds may be used. Intakes may be port matched up to 1 ½ inches to match cylinder heads. Carburetor spacers or adapters are NOT ALLOWED.
  - h. Induction System: One Holley carburetor 4150 style (size) only is allowed. Naturally aspirated only, no forced induction allowed.
  - i. Lubrication (Engine): External oil pumps or dry sump systems are not allowed.
  - j. Ignition System: Engines are required to use the MSD Digital or Analog Ignition system limited to 5400 RPMs. Crank triggers and belt drive ignitions are not allowed.

**Ignition System:** All engines are required to have the ignition system limited to 5400 RPMS and have a G2 Pro Data Logger installed and maintained to monitor the RPM level during the race. The RPM level during the entire race must be verifiable on the Data Logger by the OPA Inspector upon the completion of the race, during the Post-Race inspection. No dual systems or ignition components are allowed. If the Data Logger does not read (DNR), you will be disqualified and receive last place points.



**Maximum RPM Limit:** Any boat competing in MV that exceeds the above listed MAXIMUM RPM LIMIT, as determined by the OPA Inspector “WILL BE” awarded last place points and will not be eligible for trophies, flags, or prize money.

**Engine maintenance and rebuilds** – The respective motors can be maintained and rebuilt, utilizing stock OEM parts and specifications, with a maximum cubic inch limitation of 510 cu in and a maximum compression ratio of 9.0:1, all other engine specifications and tolerances must be as per the Original Engine Manufacturer or have approval from OPA in writing. Note: Aftermarket 502 cubic inch GM blocks may be used.

**Penalties** - Any violations of the above rules may result in the immediate disqualification of the subject competitor and a fine.

### **EXHAUST SYSTEM SPECIFICATIONS**

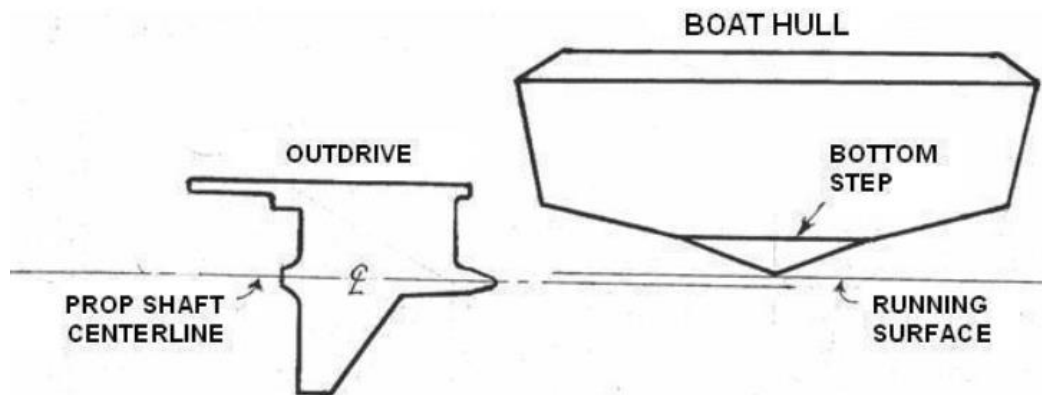
- Exhaust Manifolds and Headers - Must remain as originally produced by the manufacturer and may not be modified in any way without the written approval of OPA.
- HP 525 EFI Engines & the MV 510 CID Motor - Only CMI Gen X Style Header, the HP 525 EFI Style Header, the CMI Straight Back Sweeper Header, or the Innovation Marine Tractor Style Header is permitted.
- Tail Pipes and Exhaust Tips - Any tail pipe or exhaust tip is allowed. Tail pipes may be of any length and can exit the boat through the gunnel, deck or transom. The engine exhaust headers and pipes from the engine outlet to point of exit from the hull or deck must be water-cooled by water jackets. The exhaust outlet/tip may not exceed more than 12 inches beyond the transom of the boat. Dry tail pipes are allowed but must be water jacketed.
- Cooling Water - Neither the method, nor the volume of cooling water flow to the exhaust system may be altered from the production configuration. All engine cooling water must pass through the exhaust elbow/tail pipe and either into the exhaust, an onboard ballast tank fill or to a thru hull fitting. No water can be diverted for exit elsewhere.
- Non-Conforming - OPA reserves the right to approve alternative additional exhaust installation hardware when required for specific boat builder installations.
- Rear Engine Mounts - are allowed

### **Outdrive Specifications:**

- Approved Models – The Mercruiser Bravo One, XZ, XR, Sportmaster , Short Sportmaster XR, BMAX, and Imco SC and SCX Drives are approved for competition.
- The Volvo DPX Duo Prop is approved for competition.
- Nose Cones - Approved Nose cones are allowed. Check with OPA prior to using a particular nosecone to ensure it is approved for competition.
- Crash Boxes - are not allowed.
- Gear Ratios - the only gear ratio allowed is 1.50:1 at the prop shaft.
- Dry sumping - of drives is not allowed.
- Shifting - Drives must be capable of shifting forward, neutral and reverse with the engines running.
- Modifications - Drive modifications (i.e. one-piece propeller shafts, heavy-duty bearing carriers, etc.) only to increase reliability are allowed. Parts must be available to all racers at reasonable

commercial prices. Any other modifications to the outdrive (s) or any related components must first be approved by OPA in writing prior to being used in competition.

- Transmissions - transmissions are not permitted in MV.
- Standoff boxes - are permitted. Standoff boxes must be of a design, size and length that have been approved in writing by OPA. Check with OPA prior to using a particular standoff box to ensure it is approved for competition. Standoff boxes are limited to a maximum of 12".
- Jackshafts - are allowed.
- X-Dimension – Weight Modification - In an effort to create parity between boats the maximum drive height for MV boats shall be limited to the centerline of the prop shaft being a minimum of one half inch (1") below the bottom of the boat, as measured with a straight edge (laser) off the aft running surface, directly in front of the drive, with the prop shaft trimmed parallel with the aft running surface. Notches, strakes and steps will be excluded. In addition to the X-Dimension the Minimum Weight Requirement may also be modified to create parity.



- Parity – In an effort to create parity within the MV Class, after two consecutive wins, OPA may implement one or any of the following. It will be at OPA's discretion to what degree and which of the following will be implemented.
  - X-Dimension: Adjust the X-Dimension on an individual basis. (see diagram)
  - Weight Modification: Control the weight of any individual boat, in an effort to maintain the competitive balance of the class. (see diagram)
  - In addition to the minimum weight adjustment, OPA reserves the right at their discretion to also modify the drive height of any boat at any time either in conjunction with the weight adjustment or separately in an effort to maintain a competitive balance in the class.
- Casings - The upper and lower drive case housing must remain in its original production configuration. The drive case housing may not be shortened or modified. Blue printing is allowed however the casings must meet the specifications of the OPA Template.
- Propeller Rotation - Inboard or Outboard (Left or Right) Rotation of propellers is allowed.
- Water Pickups - No thru hull water pickups will be allowed. Engine cooling water must be supplied through the stock outdrive water pickup.

#### **Propeller Specifications:**

- Castings - Propellers must be manufactured from castings.
- Over the hub propellers NOT permitted

- Modifications - Propellers may be modified from the original factory casting with grinding and machining.
- Forged, billet - or other types of propellers are not allowed.
- Availability - Propellers must be available to all racers within a reasonable delivery time.
- Approved Propellers – Cast propellers must be approved by OPA.
  - Three, four, and five blade cast propellers manufactured by Hering, Hydromotive, Throttle-Up, and Mercury are approved.
  - Six blade cast propellers manufactured by Hering, Throttle-Up, and Hydromotive are approved.
  - Other manufacturers of cast propellers may apply to OPA for approval based on the following criteria:
    - Reasonable prices and available to all racers.
    - Manufacturer maintains national availability through a national dealer network.
    - Units are available to, and generally recognized by, approved boat manufacturers as OEM Equipment.

## VEE EXTREME – Technical Rules

All OPA VEE EXTREME class boats must strictly adhere to the following specifications. They also must observe the rules specified under their specific class headings. (VEE EXTREME class may also be referenced as VX).

If this rulebook does not specifically say that you can do or use something, then you must consider that the action, change or component is illegal. No equipment or race boat in violation of these rules will be considered as having been approved by reason of having passed through pre-race inspection or post-race inspection at a prior event, “unobserved”.

Any questions about the legality of any change, or of any action, part, or component, must be submitted in writing and answered in writing by the OPA prior to the change or use. OPA is empowered to make any technical rule changes it deems necessary to maintain competitive balance and/or safety for the boats competing in the VEE EXTREME class.

All boats as well as every part used in connection therewith, including but not limited to engines, outdrives, transmissions, crash boxes, and propellers (and all parts and components related thereto) must be both manufactured and intended for sale to the public at commercially reasonable prices. Exclusivity agreements of any type that have not been approved by OPA are strictly prohibited. This rule applies to competitors only and shall not be construed in any manner whatsoever to limit or restrict OPA from entering into exclusivity agreements such as official sponsorships involving single source vendors, suppliers, manufacturers or producers.

If there is a disagreement or dispute about the OPA Technical Rules, the interpretation of OPA shall prevail. Decisions must be rendered in writing.

### Boat specifications:

Hull Type:	Mono-Hull
Length minimum:	35' 0"
Length maximum:	46' 0"
Beam:	9' 3"
Height:	All boats for VEE EXTREME class must measure at least 48" from the keel to the deck forward of the canopy (not including the canopy).
Weight Minimums:	9000 lbs

**Minimum Weight Measurement** - is determined at the end of the race. All boats required or directed to weigh by the Inspector must report to the Crane of the Day, the same crane must be used for both entering and exiting the water. It will be the responsibility of the Owner, Driver, or designated Crew Member to present the boat for Post-Race weighing with the boat in the lifting harness in a level position, with the hull drain plugs removed and the boat empty of water, with all ballast tanks empty, and all helmets and jackets removed. If the Inspector finds otherwise the boat will be immediately assessed a two (2) minute penalty. No private cranes or scales will be utilized for Official weighing compliance purposes. The weight will be an all-up weight including engines, residual fuel, drives, propellers, fixed ballast (i.e. that which is used from start through completion of race). No multiple weighing, one only (one in and one out).

**Canopies** – Vee Extreme registered race boats are required to have canopies.

1. All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.
2. Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.
3. Non-compliance – OPA has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

**Engine Specifications:**

1. Displacement: Maximum 572 Cu In., any bore and stroke combination.
2. Compression Ratio: The maximum compression ratio allowed is 9.5:1 measured by whistler device calibrated at race site with master cylinder.

**Valve System:**

1. Number – Two (2) valves per cylinder operated via pushrods.
2. Maximum Gross Cam Lift - measured at the valve is .740 inch with zero lash.
3. Variable Cam Timing - is not allowed.

**Block:**

1. Cast Iron - General Motors, World Products, (Merlin), and Dart blocks in there stock OEM configuration and must be approved by OPA.
2. Chevrolet - design blocks with 9.8" or 10.2" deck heights are approved.
3. Sleeves - or bushings may be used providing the original OEM (GM) lifter bore location is not changed.
4. Pushrods - must ride in the center of the lifter. (no offset lifters)

**Internal Components:**

1. Materials - Crankshaft, connecting rods, pushrods and wrist pins must be made of steel. Titanium or other materials are not allowed.
2. Single Plane Crankshafts - are not allowed. Crankshaft throws must be timed in accordance with OEM specifications.

**Heads:**

1. Approved Cylinder Head - is the DART PRO I, CNC Ported Aluminum Cylinder. Head Part #19574030. No other heads are allowed. No modifications to the original head castings are allowed.
2. Spec Cylinder Head Serial Number - must remain on the head and may not be defaced or altered.

**Intake Manifold:**

1. Carburetor Spacers - or adapters are allowed, maximum of 2.5" between the bottom of the carburetor and the top of the manifold is allowed.
2. Any stock cast intake manifold. The manifold may be port matched up to 1½ inches to match cylinder heads no other modifications allowed. No fabricated or tunnel ram type manifolds may be used.

**Induction System:**

1. Naturally Aspirated Engines Only - No forced induction engines are allowed.
2. Approved Fuel - 91 - 93 Octane, no fuel additives or Oxygenated fuel is allowed.
3. Number - Only one carburetor is allowed per engine.
4. Approval Carburetors - Any Holley Dominator style carburetor is allowed.
5. Fuel Injection – is not allowed.

**Exhaust System:**

1. Any Exhaust System may be used with the following requirements: The engine exhaust manifolds and pipes from engine outlet to point of exit from hull or deck must be water-cooled by water jackets. The exit from the hull or deck must be located in such a position whereby exhaust fumes cannot affect the crew.

**Transmissions:**

1. General - All boats competing in the VEE EXTREME class must have propulsion systems capable of turning the propellers in either direction or maintaining a neutral (standstill) state while the engine is running.
2. Single Speed - transmissions / crash boxes capable of forward, neutral and reverse are allowed.
3. Multi Speed – transmissions are not allowed.

**Lubrication (Engine):**

1. Wet Sump - and internal oil pumps are allowed.
2. Dry Sump - External oil pumps or dry sump systems are allowed, however, a maximum of three scavenging pump sections allowed on dry sump systems.
3. Intake Valley - must remain as cast with NO alterations to prevent oil flow from the valley to the crankcase. No raised sections may be attached or formed with any material around oil drain openings in the intake valley. No “damming” or collecting of oil by any means is allowed in the intake valley.

**Ignition System:**

1. Distributor - must remain in factory delivered location.
2. Electronic Ignitions - All VEE EXTREME class Engines are required to use the MSD Digital or Analog ignition system, limited to 6600 RPMS. A G2X Data Logger must be installed and maintained to monitor the RPM Level during the race. The RPM level during the entire race must be verifiable on the Data Logger by the OPA Inspector, upon completion of the Race, during the Post-Race Inspection. The Ignitions with an internal dial up RPM Limiter will be set and sealed by the OPA Inspector. The wiring harness of the system must be accessible and provide the ability for an OPA Inspector to examine it. No Dual Systems or Ignition Components are allowed. Any boat competing in the VEE EXTREME class that exceeds the above listed MAXIMUM RPM LIMIT, as determined by the OPA Inspector will be awarded last place points and will not be eligible for

trophies, flags, or prize money. If the Data Logger does not read (DNR), you will be disqualified and receive last place points.

3. Crank Trigger and Belt Driven Ignitions – are not allowed.
4. Coils - Ignition systems are limited to one (1) ignition coil. Individual ignition coils per cylinder are not allowed.
5. Back Up Ignition Systems – are not allowed.
6. Spark - must be distributed via distributor rotor and cap.

#### **Engine Supplier:**

1. OPA Racing also will allow multiple engine builders to supply engines that meet the VEE EXTREME class engine specification.
  - a. The Goals of VEE EXTREME class - spec engine program are to:
    - a. Increase competitive balance throughout the fleet.
    - b. Develop an “8 race engine”.
    - c. Reduce the maintenance and operating costs for the majority of the teams during an entire season.
    - d. Increase reliability and durability.
    - e. Increase performance and acceleration so the VEE EXTREME class boats can negotiate the tighter multi-turn OPA courses more effectively.
    - f. Increase the number of teams that can afford to field competitive VEE EXTREME class entries.
    - g. “Recession” proof its racing product by decreasing reliance on outside third party suppliers for the propulsion systems used in the race boats.

#### **Outdrive Specifications:**

1. Approved Drive Systems - All Mercury, Arneson and Arneson type Drive systems are allowed, but must retain their original OEM configuration and specifications. The Mercury #6 drive is limited to a 1.57:1 gear ratio at the prop and the Arneson drives are limited to a 1.56:1 gear ratio at the prop. No internal or external modifications are allowed. Any other type drive system must be approved in writing by OPA RACING.

#### **Propeller Specifications:**

1. Approved Propellers - Mercury, Hering and Rolla are approved.
2. Propellers must be approved by OPA.
3. Propellers must be Cast Stainless Steel, no forged units of any type or titanium propellers are allowed.
4. Other manufactures of cast propellers may apply to OPA for approval.
5. Propellers must be intended for sale to the public at commercially reasonable prices and available to all racers.
6. Thickness - All propellers will be measured and limited to a minimum thickness. The standard blade thickness will be the normal OPA Lab Finish. (See Chart)

**Other:**

1. Air Scoops - Engine hatches with or without scoops are allowed. It is illegal to completely seal the inlet air track running from external openings to the flame arrestor. Fresh air ducting must be no closer than 2" at its nearest points to the engine and/or flame arrestor. Sealing or pressurizing the engine compartment is not allowed.
2. Ballast Tanks - ballast tanks are allowed. No transferable closed liquid systems are allowed.
3. Illegal Parts - Use of illegal or unauthorized parts on a VEE EXTREME class race boat will result in the confiscation of the said parts. Failure to surrender the illegal part(s) will lead to a mandatory suspension for the boat, the boat owner and all riding crewmembers until the illegal part(s) are surrendered to OPA. It shall be the responsibility of the owner or his designated representative to take whatever actions are necessary to ensure the correct components are present.

**Propeller Inspection Specifications for VEE EXTREME  
SSM VI DRIVE TYPE PROPELLER DEMENSIONS**

Propeller Diameter			Strike Radius at:	
15	Inch	2"	4 ¼ "	6 ½"
15 ¼	Inch	2"	4 5/16"	6 ⅝"
15 ½	Inch	2"	4 3/8"	6 ¾ "
15 ¾	Inch	2"	4 7/16 "	6 7/8 "
16	Inch	2"	4 ½ "	7"
16 ¼	Inch	2"	4 9/16 "	7 1/8"
16 ½	Inch	2"	4 5/8 "	7 ¼ "
16 ¾	Inch	2"	4 11/16 "	7 3/8 "
17	Inch	2"	4 3/4"	7 ½"
17 ¼	Inch	2"	4 13/16"	7 5/8 "
17 ½	Inch	2"	4 7/8"	7 ¾ "
17 ¾	Inch	2"	4 15/16 "	7 7/8"
18	Inch	2"	5"	8"

**INTERSECT RADIUS LINES AT:**

Radius	Distance from Leading Edge	Thickness
2"	1 ⅜"	.283"
4 ¼" to 5"	1 ½"	.182"
6 ½" to 8"	1 11/16"	.115"

**INTERSECT RADIUS LINES AT:**

Radius	Distance from leading Edge	Thickness
2"	1 ½ "	.475"
4 ¼" to 5"	1 ½ "	.302"
6 ½ " to 8"	1"	.130"



## Super Stock - Technical Rules

All Super Stock (SS) Class boats must adhere strictly to the following specifications. Please also refer to the rules pertaining to all Offshore classes.

### Dimensions

Hull type	Catamaran
Length minimum	28'0"
Length maximum	32'0"
Beam maximum	10'6"
Tunnel width maximum (measured at keel)	63" <i>*(measured at the keel)</i>
Weight Minimum	4900 lbs

### Engine Specs (Twin Engines)

- Approved Engine: Mercury 300xs, 2006-current, 300 hp, 3.2L (193 CID) with Sportmaster lower unit. Mercury 300R with 20" midsection as delivered or with most recent approved stock upgrade from Mercury Racing only.
- Cowlings: May be a light weight facsimile of the production cowling. Manufacturers decals must be on cowling.
- Powerhead: Must remain stock as produced by the manufacturer. The year must be declared prior to the race.
- Balancing and Blueprinting is not allowed. Balancing and Blueprinting shall be defined as (but not limited to) "cleaning -up", "bringing to spec", removing or adding any metal or any other material to balance any reciprocating parts. Media blasting and bead blasting not allowed.
- Compression Ratio: May not be altered
- ECU boxes: May not be modified or reprogrammed. Maximum RPM allowed ~~6500~~ 6400. Mercury certified ECU boxes will be issued Prerace and collected Postrace.
- Flywheels: No modifications or lightening is allowed.
- Reeds: Any reeds are allowed. Stock reed cages must be used.
- Lower Unit: Must remain stock as produced by the manufacturer. Any OEM gear ratio is allowed. Blueprinting and Trueing are not allowed. Media blasting and bead blasting not allowed.

**Engine modifications:** The center section/mid section may be converted to the Mad EFI 15" offshore (3L top to 3L bottom). The exhaust system must remain stock as produced by the manufacturer however the "Muffler" must be cut off to fit inside 15" center section.

- Updating of equipment: Allowed
- Backdating of equipment: *Not Allowed*
- **After Market Tuner:** Allowed
- Engine modifications: The center section/mid section may be converted to the Mad EFI 15" offshore (3L top to 3L bottom). The exhaust system must remain stock as produced by the manufacturer however the "Muffler" must be cut off to fit inside 15" center section.

- Updating of Equipment: Allowed
- Backdating of Equipment: Not Allowed

**Propellers:**

- Must Be cast Stainless Steel, no forged or titanium propellers are allowed
- Below is a list of currently approved propellers manufacturers. All other propellers must be approved by OPA Officials prior to use.
  - Mercury
  - Hydromotive
  - SPINELLI
  - Mazco
  - Dewald
  - Hering
  - Chopper Perf.
- CNC Propellers are Illegal

**Steering:** External - Hydraulic steering is required.

**Remote water pick ups:** Not Allowed

**Fuel:** Only petroleum based fuels are allowed. Octane enhancing additives are not allowed. Oxygen enhancing additives are not allowed.

**Tunnel tabs:** ONLY fixed tunnel tabs are permitted.

**Safety:** All Super Stock boats built after May 1, 2022, are required to meet, or exceed the latest Lavin/ UIM safety cockpit construction standards.

**Adjustable motor brackets:** Jackplates must be manually adjusted and may not be movable while the boat is under power racing.

## 450R Factory Stock - Technical Rules

*This class is for factory class racing, no custom built engines permitted. All boats must be out of a production mold, certified by OPA Racing, no custom built boats will be permitted. This class will run with full safety canopies only.*

Length	34' - 40'
Beam	11'6"
Tunnel Width	72"
Weight	6,500 LBS
Engines	Mercury 450R
Height	44"

### Dimensions

- Tunnel Width maximum is measured at the keel of the boat.
- Height All new boats homologated for Factory Stock Class must measure at least 44" from the keel to the deck forward of the canopy (not including the canopy).

### Engine Specs (Twin Engines)

- Mercury Racing 450R engines are the only engines permitted in the class. The engines must be in their stock factory configuration. No modifications are permitted.
- Cowlings may be a lightweight facsimile of the production cowling. Manufacturers' decals must be on the cowling. External air intakes may be added.
- Powerhead must remain stock, as produced by the manufacturer.
- Balancing and Blueprinting is not allowed. Balancing and Blueprinting shall be defined as (but not limited to) "cleaning up", "bringing to spec", removing or adding any metal or any other material to balance any reciprocating parts. Media blasting and bead blasting is not permitted.
- **Compression Ratio** may not be altered, under any circumstances.
- ECU's may not be modified or reprogrammed, under any circumstances.
- **Flywheels** must remain stock, no modifications or lightening is permitted.
- Lower Units must remain factory stock, any OEM gear ratio is allowed. Blueprinting or truing are not permitted. Media or bead blasting is also not permitted.
- Engines shall be limited to 6400 RPM

### Propellers

- Must be OEM propellers.
- No forged propellers
- May use only a #4 or #5 prop

### Steering

- External - Hydraulic Steering is required.

## Transom Brackets

- Transom brackets are allowed, but may not be adjustable during competition

## Interpretation of Rules

- If there is a disagreement or dispute regarding the meaning or application of these Rules, the interpretation and application of the OPA shall prevail.

## Changes to Existing or Introduction of New Equipment -

- **WARNING TO RACERS - IF THIS RULEBOOK DOES NOT SPECIFICALLY SAY THAT YOU CAN DO OR USE SOMETHING, THEN YOU MUST CONSIDER THAT THE ACTION, CHANGE OR COMPONENT IS ILLEGAL. NO EQUIPMENT OR RACE BOAT IN VIOLATION OF THESE RULES WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH PRE-RACE INSPECTION, OR POST RACE INSPECTION AT A PRIOR EVENT, "UNOBSERVED".**
- **Written Approval Required** - Any questions about the legality of any change, or of any action, part, or component, must be submitted in writing and answered in writing by OPA prior to the change or use. OPA is empowered to make any technical rule changes it deems necessary to maintain competitive balance and/or safety for the boats competing in the **450 R Factory Stock Class**.

## Exclusivity Prohibited

- All boats as well as every part used in connection therewith, including but not limited to engines and propellers (and all parts and components related thereto) must be both manufactured and intended for sale to the public at commercially reasonable prices. Exclusivity agreements of every type that have not been approved by OPA are strictly prohibited. This rule applies to competitors only and shall not be construed in any manner whatsoever to limit or restrict OPA from entering into exclusivity agreements such as official sponsorships involving single source vendors, suppliers, manufacturers or producers.

## Enforcement of Rules

- The purpose of these rules is to ensure competitive balance between **450R SuperStock Class** racing teams. OPA thus reserves the right to take whatever actions it deems necessary to enforce these rules, including but not limited to impounding any boat and/or parts and components thereof for inspection purposes, and/or prohibiting the use of any part or component which it deems gives a team an unfair competitive advantage, in its sole and absolute discretion. All illegal parts or components become the property of the OPA. OPA Race Officials are authorized to decide if an equipment change is an attempt to beat the rules. They can and will disqualify an entry in violation of the spirit and intent of these rules or take such other action as they deem necessary to maintain competitive balance in the class.

## Rules Changes to Maintain Competitive Balance

- OPA RECOGNIZES THAT THERE ARE CONSIDERABLE DIFFERENCES IN BOAT LENGTH, SPONSON DESIGN, TUNNEL WIDTH, ANGLE, SHAPE AND OTHER ASPECTS OF BOAT DESIGN. ACCORDINGLY, OPA RESERVES THE RIGHT TO MAKE ADJUSTMENTS AT ANY TIME TO BOATS, ENGINES, PROPELLERS, ETC., INDIVIDUALLY OR CATEGORICALLY, TO MAINTAIN COMPETITIVE BALANCE BASED UPON EXPERIENCE IN RACE CONDITIONS.

## Minimum Weight Measurement

- Will be determined at the end of the race. The weight will be an all-up weight including engines, residual fuel, drives, propellers, fixed ballast (i.e. that which is used from start through completion of race) all hull drain plugs removed, and safety equipment as stated in the racing rules. The following is not included in the all-up weight: crew, lifejackets, crash helmets and bilge water. A single point lifting harness is mandatory for all boats.

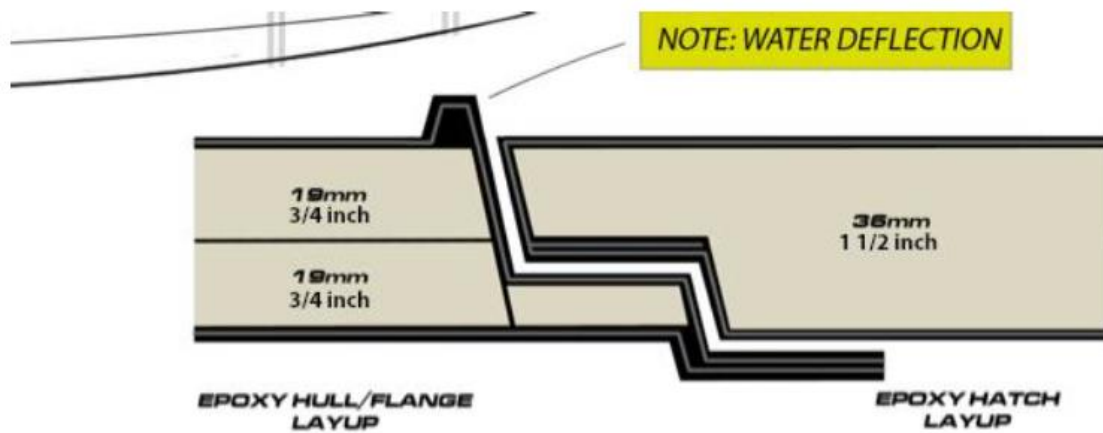
## HOMOLOGATION OF MOLDS, HULLS AND DECKS –

- Homologation of Equipment
  - **Boats** - Manufacturers must comply with the Homologation Rules set forth herein.
  - **Engines** - Manufacturers must comply with the Homologation Rules set forth herein.
  - **Approved List** - OPA shall maintain an up to date list of hulls approved for competition.
  - **WARNING TO RACERS** - OPA strongly recommends that racers wishing to purchase a new or used boat check with OPA PRIOR TO THEIR PURCHASE to ensure that the boat they intend to purchase is on the OPA Certified list. Boats not on this list are not approved for competition in OPA.
  - **Eligibility** - To be eligible for competition in Factory Stock Class all boats must be homologated by OPA. A request for an “Application for Homologation” may only be made by a manufacturer and must be submitted in writing at least 45 days prior to any race. The request must have contact name(s), and their corresponding daytime and nighttime phone numbers, fax numbers and existing e-mail addresses.
  - **Application in Writing –**
    - **Current Models** - All manufacturers should apply to OPA at least 90 days prior to competition to have their boats homologated. To be eligible for competition, a boat must be homologated by OPA, if at all, at least 30 days prior to competition so applicants are encouraged to submit all necessary paperwork as soon as possible. Any changes to the original homologation application, including but not being limited to changes to hull and/or deck specifications, must be approved by OPA prior to being used in competition.
    - **New Models** - Manufacturers wanting to build a new boat eligible for competition in OPA, are required to submit to OPA written notification of intent to build a new model of boat plus line drawings, hull and deck specifications and any other information required by OPA, of the proposed model prior to beginning construction. All notifications and drawings will be held in strictest confidence. Said notification of intent shall be directed to OPA. Manufacturers who fail to comply with this rule risk a denial of homologation for that model. A manufacturer is limited to the introduction/approval of one new model boat every calendar year.

## Criteria –

In order to be homologated for competition in Factory Stock, a model of boat must meet the following criteria and all such information must be submitted to OPA in the application for homologation as a pre-requisite for consideration. Failure to submit the required information or any other information requested by OPA will result in the denial of an application for homologation.

- **Dimensions** – All homologated boats must satisfy the Dimensions set forth in the table, above.
- **Custom Hulls and Decks** - One of a kind hulls and decks, custom fabricated, are not allowed.
- **Construction, Changes, Modifications**
  - **Dedicated Molds** (Hulls and Decks) - All new boats homologated for Factory Stock Class must have hulls, including bottoms, and decks produced from a dedicated mold using FRP (fiber reinforced plastic) construction and be available to the general public at commercially reasonable prices.
  - **Hull Bottoms** - The approved hull bottoms must be identical to those produced from a manufacturer's production line mold with no changes allowed unless approved in writing by OPA. Subject to the requirements set forth below, an owner or manufacturer may upgrade the bottom of a pre-existing boat bottom design to new factory standards that have been approved through the homologation process. These upgrades must be precise so as to allow the updated hull to fit into the new factory molds. No backdating is allowed without the written permission of OPA. All such change requests must be submitted in writing at least 60 days prior to competition with the precise measurements to OPA.
  - **Materials** –
    - Advanced composites i.e.: oven cured pre-preg construction is not allowed.
    - Wet lay-up vacuum bag construction is allowed
  - **Changes to Molds, Hulls, or Decks** - Hulls and decks homologated must be identical to the mold. The only exception is that the deck may be modified in the immediate cockpit and engine hatch area for the installation of safety canopies and air scoops. Homologated boats produced from the dedicated mold may not be made wider or narrower, longer or shorter, higher or lower, or changed in any way from the original mold configuration as homologated, unless otherwise approved in writing by OPA.
  - **Request for Changes, Modifications** - Any request for changes to the original mold (including inserts) or to boats produced from the mold must be submitted in writing to OPA and approved by OPA in writing prior to the change and at least 30 days prior to competition.
  - **Add-ons** - No add-ons such as strakes, rails, speed rails, spray rails, etc.
  - **Serial Number** - Each hull shall have a unique and individual engraved serial number.
- **Canopies** –
  - Compliance with OPA Guidelines - All Factory Stock boats must use canopy safety systems that comply with the latest OPA Cockpit Guidelines. It shall be the sole responsibility of the owner of the race boat to maintain a copy of the applicable OPA Guidelines.
  - Non-compliance – The OPA President has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems. The OPA President also has the authority to allow a non-compliant boat to compete provided that after consultation with the Chief Inspector, Competition Director and Chief Medical Safety Director he determines that the intent of the guidelines has been met and that the safety of the riding crew and fellow competitors is not jeopardized.

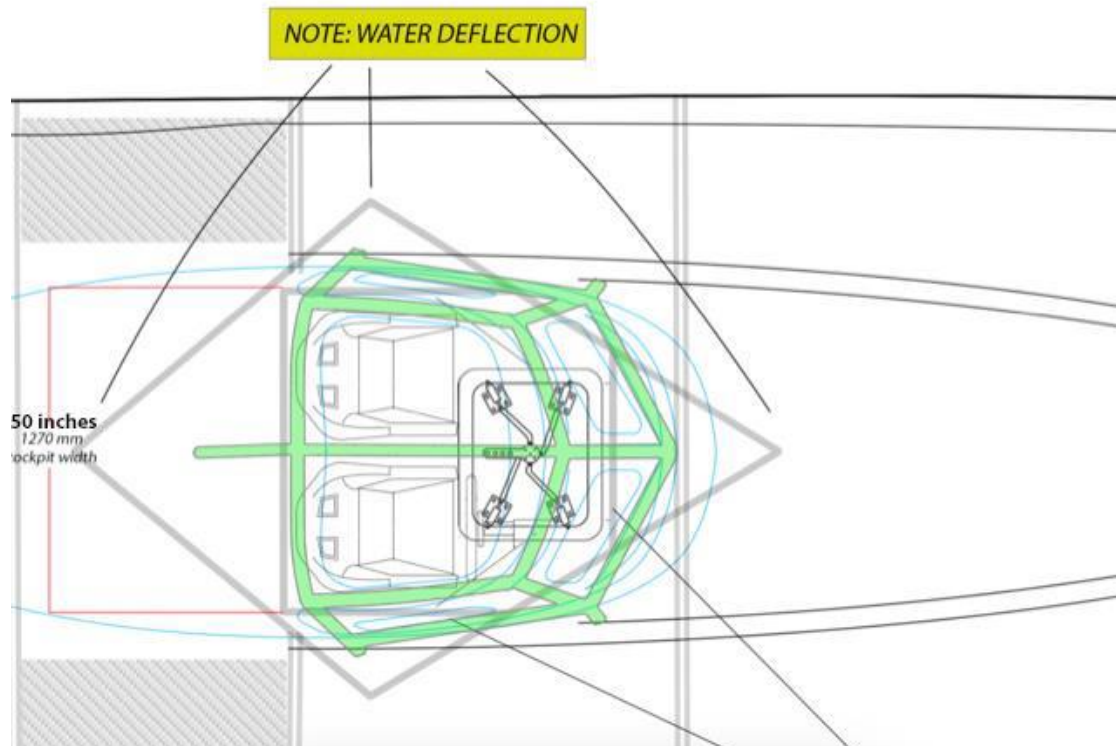


**EPOXY HULL/FLANGE LAYUP**

- 1.5oz chopped strand mat
- 1 layer 288 g/msq twill 0/90 e glass
- 1 layer 12oz im carbon blax +/- 45
- 2 layers 16oz quad carbon 0/+45/90/-45
- 1 layer 12oz im carbon blax +/- 45
- 19mm m130 corecell
- 1 layer 12oz im carbon blax +/- 45
- 19mm m130 corecell
- 1 layer 12oz im carbon blax +/- 45
- 2 layers 16oz quad carbon 0/+45/90/-45
- 2 layers 12oz im carbon blax +/- 45

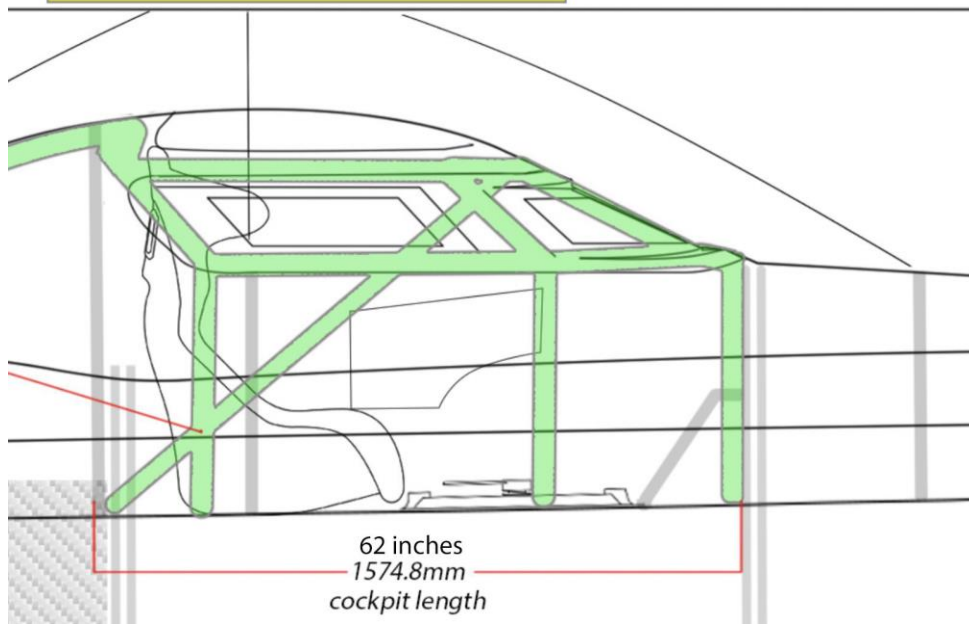
**EPOXY HATCH LAYUP**

- 2 layers 12oz im carbon blax +/- 45
- 2 layers 16oz quad carbon 0/+45/90/-45
- 2 layers 12oz im carbon blax +/- 45
- 36mm m130 corecell
- 2 layers 12oz im carbon blax +/- 45
- 2 layers 16oz quad carbon 0/+45/90/-45
- 1 layer 12oz im carbon blax +/- 45
- 2 layers 19oz uni to form "cross"
- 1 layer 9oz kevlar twill

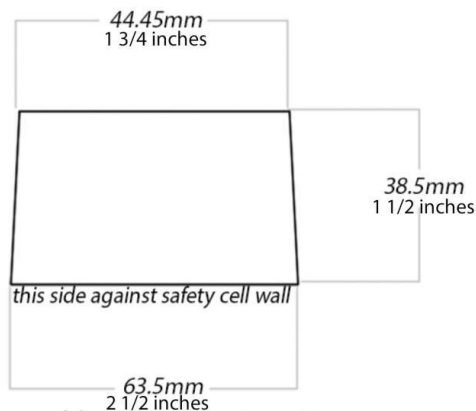




**NOTE: WATER DEFLECTION**



*rib and beam of safety cell*



*rib and beam construction*

*m100 corecell*

*3 layers 12oz im carbon biax +/- 45*

*carbon extends 101.6mm on both sides of cell*  
4 inches

1. Purpose –

The purpose of the foregoing is to ensure competitive balance between racing teams within the Factory Stock class. OPA thus reserves the right to take whatever action it deems necessary to enforce these rules, including, but not limited to, impounding any boat and/or parts and components thereof for inspection purposes, and/or prohibiting the use of any part or component which it deems to give a team an unfair competitive advantage, in its sole and absolute discretion. All illegal parts or components become the property of the OPA.



# UNLIMITED

All Unlimited Class boats must strictly adhere to the following specifications.

## 1. Hull Specifications:

- |                              |                                 |
|------------------------------|---------------------------------|
| • Hull type:                 | Any * ( <i>NO Hydroplanes</i> ) |
| • Catamaran No. of Engines:  | Maximum Two (2)                 |
| • Vee Bottom No. of Engines: | Maximum Three (3)               |
| • Length minimum:            | 40' 0"                          |
| • Length maximum:            | 52' 0"                          |
| • Beam maximum:              | 12' - 4"                        |
| • Tunnel width maximum:      | 76"                             |
| • Height minimum:            | 48"                             |
| • Weight minimum:            | 10,500 LBS.                     |

\*\*No 3 or 4 point hydroplanes allowed

## 2. Engine Specifications:

- Allowed Engines: Any Piston Driven Engine. Any modifications are allowed to enhance operation in a Maximum RPM marine racing environment.
- Engines shall be limited to 6800 RPM

## 3. Transmissions: Single Speed; Multi Speed Transmissions not allowed.

## 4. Drives: Any

## 5. Propellers: Cast stainless steel or forged propellers only. No billet, titanium or other type propellers allowed. Note: Minimum blade thickness shall be based on Mercury 1350 propeller specifications.

## 6. Rudder Specifications: Materials Stainless steel or titanium only Serial number Unique stamped or engraved, required Minimum thickness 0.350", any fore-aft chord Edges, sharpening Allowed Rudder shape No Restrictions Dimensions No Restrictions Depth Rudder must extend at least 5" below keel @ max lift Trimable Not Allowed Lifiable Not Allowed 64

## 7. Fire Suppression: A minimum of one Coast Guard certified fire extinguisher per engine compartment. Extinguisher must be sized according to Coast Guard regulations.

## 8. Fuel: Racing gasoline is permitted.

## PERFORMANCE CLASS RULES

1. The racers must stay in their bracket speed at any time the race course is deemed “hot”. If a race boat exceeds the bracketed speed for at least 3.1 seconds consecutively, that team will receive last place points. If at any point in which a race boat exceeds the bracketed speed for an extended/excessive duration of time, the boat may be disqualified and may be forced to move up a class for the remainder of the season. If the race boat runs at an extended/excessive duration of time at the last race of the season, penalties can carry over to the next registered season. The race boat that moves to the next class will not take any accumulated points with the boat to that class nor will they need to pay another equipment registration fee for the remainder of the season.
  - Examples of extended duration:
    - i. Takes the start and never runs under the bracketed speed. ie: Boat A takes the start in Class 5 and runs an entire race at 80 MPH or faster.
    - ii. A boat intentionally breakouts in solid 5-minute durations to shamelessly grandstand in a hometown event.
2. The speeds are based on the distance of the actual racecourse. Before the race starts, a race official will give scoring a GPS reading of the distance. This is put into the computer along with you time to compute lap speeds.
3. Boats shall be a minimum length 20’, maximum length 55’ (see boat length specifications for the respective classes.)
4. Class race boats will be identified with only the class numbers as their assigned number.
5. The Class that you will be racing in will be on your estimated speed of your boat. If you do not know what class you should be in, speak to the OPA President.
6. Speeds will be confirmed by an Official GPS unit. (see section for “OFFICIAL GPS UNITS”)
7. In the event there is a boat that that does not complete the race and a boat that has a breakout in a single race, the boat that does NOT finish the race will place ahead of the breakout boat.
8. A breakout of speed is classed as a disqualification in the Production Classes.
9. OPA Racing reserves the right to completely place a team in the correct bracketed class.

### What is a GPS Breakout

A GPS Breakout is when a Bracketted boat goes over their class speed (*see below list*). In ALL Bracket racing classes there is one major specification you are not permitted to do and that is run over your bracketed class speed. When you do so, it is a disqualification classified as a “Breakout”.

### How a GPS Breakout is Determined

1. A GPS breakout is any speed that goes above the bracketed class speed for a duration of time that exceeds 3.0 seconds
2. A GPS breakout speed with a duration time that measures 3.0 or less will not be counted as a breakout
3. For each boat when a breakout occurs, the total duration of time will be the measurement of the total break out.
4. Sample breakdown of 2 teams with breakout time durations. Boat A with a total of 13.8 seconds will be scored better than Boat B with 16.3 second
  - Boat A (Breakout Time duration over 3.0 seconds)

- 6.7
- 3.8
- 3.3
  - 13.8 TOTAL Time of breakout
- Boat B (Breakout Time duration over 3.0 seconds)
  - 10.1
  - 6.2
    - 16.3 TOTAL time of breakout
- 5. If there is a tie in which more than one team has the same duration of time for breakouts
  - The boat that held a breakout for the longest total distance in the race will place latter in scoring
  - In the event a tie still remains, the boat with the single highest speed will place latter in scoring

### **GPS Unit Does Not Read**

1. If in the event your GPS unit (Vbox) does not read it is considered a disqualification classified as a DNR
2. In a case in which your GPS unit (Vbox) only reads for a portion of the race, you will receive placement for those completed laps prior the GPS unit not reading. (ie: Boat A completes a race with 8 laps but the GPS only records data for 3 laps, you will be placed in the finishing order for only have completed 3 laps)

## **PERFORMANCE CLASSES**

1. Performance Class 1:
  - a. Boats are limited to 115 MPH as a top speed.
  - b. No open cockpit boats are allowed to race in Class 1
  - c. Vee & Catamaran hulls permitted
2. Performance Class 2:
  - a. Boats are limited to 105 MPH as a top speed.
  - b. Vee & Catamaran hulls permitted
3. Performance Class 3:
  - a. Boats are limited to 95 MPH as a top speed.
  - b. Single Engine or Twin Engines are permitted
  - c. Open & Canopied hulls are permitted
  - d. Vee & Catamaran hulls permitted
4. Performance Class 4:
  - a. Boats are limited to 85 MPH as a top speed.
  - b. Limited to boats 40ft
5. Performance Class 5:
  - a. Boats are limited to 75 MPH as a top speed.
  - b. Limited to boats 30 ft and under with a single engine or twin outboards
  - c. Canopy boats not permitted
  - d. Bravo based Outdrive

- e. Grandfathered Boat(s)
  - i. 30' Superboat w/twin O/B known as "Specialized Racing" hull # ----- is approved for competition
  - ii. 28' Lavey Craft w/ Twin 300HP O/B know as "Revelation" hull # ----- is approved for competition
  - iii. 24' Pantera w/a Merc#4 known as "Coastal Boat Sales" hull # ----- is approved for competition
  - iv. 26' Reindl One Design hulls are approved for Competition
  - v. 26' Armada hulls are approved for Competition
6. Performance Class 6:
  - a. Boats are limited to 70 MPH as a top speed.
  - b. No boats over 26 ft in length
  - c. Bravo based outdrive
  - d. Single engine only
  - e. Grandfathered Boat(s)
    - i. 26' Reindl One Design hulls are approved for Competition
    - ii. 26' Armada hulls are approved for Competition
7. Performance Class 7:
  - a. Boats are limited to 60 MPH as a top speed.
  - b. OPA reserves the right to inspect all boats competing in the class in order to determine that it is in a condition worthy of the event
  - c. All registered hulls shall only be "Vee" hull from 20'-22' in length
  - d. Hull shall be equipped w/ a single outboard motor with a max 300 Factory HP
  - e. Mercury 300R V8 permitted
  - f. 2-Stroke Engines ONLY
  - g. Boats must have hydraulic steering or dual cable setup
  - h. Class 700 does not participate in any OPA purse monies
  - i. Class 700 will participate in a course of approximately 20-24 miles

#### PERFORMANCE CLASS SPEEDS

<u>DESIGNATION</u>	<u>TOP SPEED</u>	<u>DESIGNATION</u>	<u>TOP SPEED</u>
Class 1	Up to 115 MPH	Class 5	Up to 75 MPH
Class 2	Up to 105 MPH	Class 6	Up to 70 MPH
Class 3	Up to 95 MPH	Class 7	Up to 60 MPH
Class 4	Up to 85 MPH		

#### OFFICIAL GPS UNITS

1. Official OPA GPS units are:
  - Racelogic VBOX Sport
  - Racelogic Video VBOX Lite
  - RaceLogic HD2 System
  - RaceLogic HD2-HDMI
2. VBOX units may be purchased directly from the manufacturer or purchased from OPA. If a VBOX unit is purchased directly from Racelogic or another retailer, the unit will NOT work with the OPA's proprietary software. If OPA is unable to read your data due to the previously mentioned you will be disqualified and receive last place points for the event.

3. Racers MUST hand in the SD Card in which the data was recorded by the VBOX. If a card is NOT submitted for reading within a timing matter, they will be disqualified and receive last place points for the event.
4. You are not permitted to run your VBOX unit in multiple races
5. VBOX units are the ONLY GPS units that are available to purchase NEW.
6. VBOX units can be rented from OPA. Rentals are limited and you MUST contact Nick to reserve a rental unit. You are NOT allowed to rent a unit for a season.
7. VBOX units require a SD Card to have the data recorded on. Below is the required SD file size
  - VBOX Sport: 4GB minimum, recommended 8GB
  - Video VBOX: 16GB minimum, recommended 32GB
  - Video VBOX Waterproof: 16GB minimum, recommended 32GB
8. You will need to keep your Video VBOX Sport in a waterproof case. (Contact GPS Official for recommended waterproof case.)
9. It is the racers responsibility to make sure that the GPS unit is working properly at all times.
10. It is the racers responsibility to make sure that there is ample room on the SD card to record the data from the GPS.
11. GPS units will not be allowed to be moved from boat to boat.
12. All units MUST be serialized with the OPA GPS Official.
13. You may run a maximum of 2 GPS units on the race course. At the end of the race you must hand in both GPS unit to the GPS Tech. The backup GPS unit will ONLY be read if the Primary unit fails to read properly.
14. To purchase or rent a Vbox unit from OPA, contact NICK SMITH. Call the number on the OPA Racing website contact page for Nick's contact information under "Call for GPS Unit".

## PRIVACY POLICY & PRACTICES

This privacy policy (the “Privacy Policy”) describes how we treat information you may provide to us, including how we may use such information, how we protect the security of such information. This includes any information associated directly with you (such as your name, title, email address or phone number) that is supplied to us in conjunction when registering as a member with OPA Racing.

Except as described in this Privacy Policy, we will not, without your consent, disclose, sell, rent, or otherwise provide to any third party any personally identifiable information collected through us or any of our services.

Please note our website includes hyperlinks to other websites neither owned nor managed by us. OPA Racing is not associated with these third-party websites and does not review their privacy policies. We cannot guarantee the privacy of any information that may be obtained by third parties at these other websites. We strongly encourage you to review the privacy policies of any website you visit before supplying personally identifiable information through that website.

We consider any information provided by you through our website, email, online form and/or in-person to be confidential, unless it is publicly available or has already been provided to us without any confidentiality restriction. OPA takes appropriate and reasonable precautions and has implemented appropriate administrative and technical procedures to protect the security of information provided through its website. We permit persons working for us to access and use information you provide only to serve legitimate business and service needs consistent with this Privacy Policy.

OPA does not share any of your information with third parties. This includes any information associated directly with you (such as your name, title, email address or phone number).

OPA follows HIPPA compliance.

OPA follows SSN compliance.

**ONLINE INFORMATION:** OPA Racing collects certain personally identifiable information through its website when you choose to submit requested information to us through email, online form, or other method. OPA does not collect information about website users through temporary “Cookies”. Please view your current web browser setting in reference to Cookies.

**PERSONAL INFORMATION:** OPA Racing collects certain personally identifiable information via online methods as well as IN-Person. OPA DOES NOT and WILL NOT share any of this information with any third Party.

## Addendum for 2023 ONLY

Anything listed within the section “Addendum for 2023 ONLY” is for the 2023 Race Season ONLY. DO NOT make assumptions that items within in this section will be valid for the 2024 season or any subsequent season thereafter.

1. **ClassONE USA** will only be offered at an OPA sanctioned event site upon request. The request must be made 60 days prior to the race date. The class will be required for the monies due for the Sanction fee to APBA. It is the sole responsibility of the racer(s)

### ClassONE USA CLASS RULES

#### ENGINES

The required engine is the Mercury Racing’s Competition 1100 QC4v. The objective of one design engine is so all boats have the same power and reliability. Any change done by the team to increase the horsepower will be seen as cheating and prohibited. The policing of the Mercury Racing’s Competition 1100 QC4v QC4v engines will be performed by Mercury Racing to assure engine parity and eliminate cheating.

#### HULL SPECIFICATIONS

Hull Type:	Catamaran*	V-Hull
No. of Engines:	Maximum Two (2)	Maximum Two (2)
Canopy:	Required	Required
Length minimum:	40’ 0” **	40’ 0”
Length maximum:	47’ 0”	47’ 0”
Beam maximum:	12’ 4”	-
Tunnel width:	76”	-
Safety hatch:	Required	-
Height minimum:	48”	-
Weight minimum:	12,000 lbs	10,000 lbs
Tunnel tabs:	12,000 lbs. (add weight of 500 lbs.)	-

#### GEARBOXES

Only the Mercury standard transmission that is included with the Mercury race engine is allowed. Nowhere in the drive train are there to be any:

- a. multi speeds,
- b. form of traction control, or
- c. slip plates

#### DRIVE SYSTEMS: Catamans

1. The only approved drive systems are as follows:
  - Mercury MK 6,

- Mercury MK 8,
  - BPM drop box and torque tube,
  - SCS drop box and torque tube (quick change ratio),
  - Victory drop box and torque tube (quick change ratio),
  - Arenson drop box and torque tube, or
  - Buzzi Trimax drive
  - For Vee Bottom hulls only – any drive
2. The following are strictly prohibited:
    - No Traction control.
    - No steerable drives and rudder. (If you have a rudder you cannot steer with the drives as well. It must be one or the other).
    - No trim-able rudders.
    - No means of changing gear ratio without mechanical input (ie. no cable or electric device to change).
    - Banned metals in the drive train and rudder assemble are as follows:
      - Hastello
      - Haynes
      - Inconel
      - Molybdenum
      - Monel
      - Titanium
      - Tungsten
      - Waspaloy
  3. Race teams that have the quick change gear ratio will be limited to 4 sets of approved propellers. Race teams that do not have the quick change gear ratio can have an unlimited number of approved propellers.

#### **DRIVE SYSTEMS: Mono-Hull**

1. Any drive propulsion system allowed
2. Any gear ratio allowed

#### **TUNNEL TABS**

Tunnel tabs shall be allowed with a weight penalty of 500 pounds.

#### **PROPELLERS: Catamaran**

As everyone has various kinds of propellers depending of where they have raced over the past few years, we would like to propose a 2 year plan so as everyone can use up their old stock of propellers and when purchasing new ones know they can use them in the future and they will be competitive based on these points. Please find as follows:

<b>WEIGHT</b>	<b>DIAMETER</b>		<b>RAKE</b>	
<b>Min</b>	<b>Min</b>	<b>Max</b>	<b>Min</b>	<b>Max</b>
20 lbs	16"	18"	10 degree	18 degree



The thickness of the blades will be finalized in a study between Herring, Mercury and OTA to determine a template with specific holes in it where the propellers can be measured. If another propeller manufacture wishes to enter into the class they must be approved by OTA and be available to purchase to all teams at a competitive price. Boats with fixed gear ratios have an unlimited propeller choice. Boats with a quick change gear ratio shall be limited to 4 sets of propellers.

#### **PROPELLERS: Mono-Hull**

- Forged or Cast propellers allowed

#### **BOAT WEIGHT – Catamaran**

- Minimum boat weight after race conclusion shall be 12,000 pounds for teams with no tunnel tab.
- Minimum boat weight after race conclusion shall be 12,500 pounds for teams with a tunnel tab.
- No water ballast tanks shall be included (tanks must be empty). There shall be no plumbing to the ballast tank. Ballast tanks must be empty at weigh-in and weigh-out
- Bilges must be dry.
- Weight without drivers and equipment.
- A solid ballast must only be moveable manually and not controlled from the cockpit.

#### **BOAT WEIGHT – Mono-Hull**

- Minimum boat weight after race conclusion shall be 10,000 pounds for teams
- Ballast tanks are permitted but must be empty at weigh-in and weigh-out

#### **BOAT LENGTH**

**Hull and Deck Measurement:** All race boats shall be measured from the top of the bow to the top of the transom on the centerline of the hull with the keel level to the ground.

- Catamaran race boats must be minimum 37' and maximum 47' as measured by OPA Racing for current race boats. Any newly constructed race boat must be a minimum of 40' and maximum of 47' as measured by the OPA Racing. The bottom of the transom (running surface) to the nose of pickle fork is the measured distance.
- Vee Bottom race boats must be minimum 40' and maximum 50' as measured by OPA Racing for current race boats.

#### **INSPECTION**

If a race team has doubt of another race team's integrity to these Rules, they may request an second inspection be performed by an OPA Racing official.

#### **RULES FLEXIBLE TO MAINTAIN COMPETITIVENESS**

These initial Rules are designed to create and maintain a competitive class. If after the rough water race in Cocoa Beach, the flat water race in Lake Ozarks, and the Sarasota race there exists an uncompetitive playing field we will revisit some of the Rules to be fluid and increase the competition amongst the boats."

#### **UIM COMPLIANCE**

All Fees that may result in the race being compliant for UIM, will be responsibility of those competing in ClassONE USA. Contact OPA Registration two weeks prior to the race for a quote of said fees.

## **PROFESSIONAL FEES**

All fees/costs that may result from Mercury Racing Inspections, Compliance, etc. will be the responsibility of the ClassONE USA Class.

## **ENGINE HARDWARE**

1. The required engine for a Catamaran is the Mercury Racing's Competition 1100 QC4V
2. The required engine for a Vee Bottom is the Mercury Racing's Competition 1350 QC4V
3. All engine hardware must be stock, as delivered by Mercury Racing
  - All hardware must be as per the official homologation document
4. Modification and/or relocation of factory engine sensors is prohibited
5. All engines will be mechanically sealed (tamper-proofed) by Mercury Racing Factory only
6. The following components will be sealed with safety wire and tamper-proofed locks. Modification or removal of tamper-proof locks is prohibited.
  - Front cover
  - Oil pan
  - Intake manifold
7. Relocation of the factory fuel pump and replacement of associated inlet and high-pressure outlet lines is permitted.
  - Unmodified, factory fuel pump must be used for fuel supply
  - If relocated, customer is responsible for extending power supply leads for the pump
  - If relocated, customer is responsible for sourcing/fabricating associated fuel lines

## **FUEL**

1. 93 octane or less

## **PROPULSION CONTROL MODULES (PCMs)**

1. Port and Starboard PCMs for use at a competition event are to be randomly distributed to competitors on the morning of each racing day. The serial numbers of each PCM and which boat they have been designated for shall be recorded.
2. Customer PCMs are to be used in all practice sessions.
3. Upon collection of competition PCMs, calibrations will be downloaded and checked by Mercury personnel for tampering.

## **CONTROLLER AREA NETWORK (CAN) DATA LOGGING**

1. Mercury Racing will provide a CAN interface and several easy to install monitoring sensors to each race team on days of competition events.
  - Teams shall provide at least one available port on a SmartCraft junction box for use of the logger, and it must be readily accessible.
  - Teams shall provide a horizontal, flat area for mounting the data logger with provided hook and loop tape. Dimensions of mounting area TBD.
  - Teams shall provide a specified data logger to interface with Mercury's provided CAN interface module.
    - Data logger specifics TBD

- The data logger will log PCM sensor data and additional redundant inlet air temperature (IAT) and manifold absolute pressure (MAP). These sensors will be serialized and tracked.
  - Redundant sensor locations TBD (IAT likely on back of #8 runner, MAP likely via a quick connect Legris line on cross over manifold)
2. Mercury to provide personnel for analysis of collected data, or will provide template files to sanctioning body officials to aid in analysis of the collected data.
  3. Any devices attached to the Mercury SmartCraft bus shall be for measurement purposes only, such as data loggers and boat displays. Any attached devices are subject to inspection by sanctioning body officials. Purposeful modification of SmartCraft signals is prohibited.

## **POST-RACE INSPECTION**

1. Up to top 4 finishers from each race are subject to a post-race inspection. Any or all of the following areas may be checked.
2. Engine electrical harness shall be visually inspected for modifications or repairs
  - No harness modifications allowed
  - Any repairs from incidental damage must be tracked in official log book(s) and approved by sanctioning body officials.
  - Repairs must be inspected and approved prior to a competition event.
  - Modification and/or relocation of factory engine sensors is prohibited
3. Camshaft Inspection
  - Precise location of top dead center (TDC) of an engine cylinder will be found with a degree wheel and piston stop.
    - Camshafts will be randomly checked for lift centerline locations relative to TDC.
    - Centerline locations for all cylinder's intake and exhaust cams to be maintained in a separate scrutineering document.
  - Camshaft lobe base circle diameters will be randomly checked for correct diameter. Lobes will be checked for correct form.
    - Mercury Racing will create and provide go/no-go tools for this inspection
4. Ignition Timing Advance Check
  - Precise location of top dead center (TDC) of an engine cylinder will be found with a degree wheel and piston stop.
  - Check and mark or verify existing mark on crank encoder for TDC cylinder #1 (Mercury to provide improved timing pointer for accurately checking timing with a timing light)
  - Mercury personnel will run a test to verify timing advance relative to TDC #1. This test will require operating the engine on a hose, in neutral, at a speed above idle.
    - Measured spark location to be within +/- 1° of Mercury factory recorded location
    - Spark advanced to be checked with specified timing light (TBD)
5. Visually inspect all hardware seals for tampering and serialization
6. Remove cross over manifold and inspect dummy throttle orifice size
7. Check that key up fuel pressure is under 420 kPa