



ERCU 2022 Rulebook

(Updated 12/27/2021)

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The ERCU Board of Directors would like to express deep thanks to the ERCU Competition Committee (Chair Gerry Bordon, Brian Buaas, David Heilbrunn, Mike Hughes and Craig Mullen) who worked on this year's proposed rules changes. We are also grateful to the nearly 30 members who took time to review and vote on these proposed rules changes.

In this book, you'll see the rules that were changed printed in bold, italicized green copy. To avoid confusion, the previous rules that were changed or recommended to be omitted have been deleted entirely from this book. However, we do have a version with the redlines that we are happy to make available upon request, should anyone want one.

Thank you all for your participation in ERCU – at whichever level works best for you. This club cannot function properly without its members, and we want each of you to know just how appreciated you are. This club is for you and by you.

A. PROLOGUE

The goal of Electric Radio Controlled Unlimiteds (ERCU) is to replicate the look and competition of real unlimited hydroplane racing. Boats are 1/10-scale *and 1/7-scale* replicas of the real boats that have raced on the unlimited circuit. The club will emphasize scale appearance accuracy and quality workmanship as well as enjoyable competition on the water. As with the real boats, the races will be run counterclockwise on the course.

B. POLICY AND INTENT

Guidelines offered in this rulebook are subject to the term “spirit and intent” and apply to the technical aspects of model boat racing as well as to the actions of drivers, crew members, owners, officials, and contest directors. It is expected that all participants will adhere to the spirit and intent of these rules.

These are guidelines for fair and equitable

D. CLASSES

I. There shall be two divisions within ERCU: 1/10-Scale and 1/7-Scale

II. Each division will support three classes

- a. Vintage: The vintage class is defined as displacement, step, pre-1950 Ventnor 3-point, and all boats with a round nose, typical of the design of boats in the 1950s and 1960s.
- b. Classic: The classic class will be all picklefork boats that ran with piston power, typical of the boats in the 1970s and 80s, including the 1980 four-point Miss Circus Circus.
- c. Modern: The modern class will be all boats that incorporate a picklefork configuration running with turbine power, typical of most boats starting in the 1990s and running to the present, including the four-point 1994 Miss Elam.

III. Classic and modern class boats will run together in the same class at all races until such a time that there are consistently has enough boats in each class to be able to have two sections for each class (minimum six each) to justify running split classes for an event.

E. CLUB MEMBERSHIP

I. Cost of membership will be \$25 annually

II. Membership runs from November 1 through October 31 each year

III. Only registered club members will be allowed to register boats and to drive boats at club events

IV. Boat registration will be \$5 per hull per year. Only registered boats are allowed to race at club events

- a. Registration will include identifying the frequency to be used for that boat.
- b. The entry fee for each race will be \$10 for the first boat in each class and \$5 per boat for each additional boat per class per race based on registered ownership of that boat

V. Fees collected by the club will be used to provide the following for the membership:

- a. Securing racecourse sites
- b. Website expenses
- c. Media promotions
- d. Banquet expenses
- e. Awards
- f. Equipment and maintenance
- g. Club supplies

VI. There are no paid positions in the club

VII. All ERCU racing members must be members in good standing of NAMBA International.

competition. They are not the basis to “read between the lines” to circumvent the intent. The “spirit and intent” clause allows the Referee to make decisions and resolve disputes in a timely manner. If you are contemplating a technical undertaking that is not directly addressed in these rules, please contact the Contest Board to make sure it is legal and will be allowed.

C. DISCLAIMER

These rules shall govern all Electric Radio Controlled Unlimiteds (ERCU) sanctioned or promoted events and, by participation in these events, all entrants are deemed to have understood and complied with these rules. No express or implied warranty of safety shall result from publication of, or compliance with, these rules and regulations. 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, or others.

F. BOAT REGISTRATION

- I. *Members are allowed a total number of boat registrations equaling two times the number of classes of hull registrations across all divisions at any one time, and not to exceed three registrations in any one class. Registration can be made at any time by mail, online or in person to the club's registrar/treasurer.*
 - a. Boat registration is on a first-come first served basis.
 - b. All registrations expire on October 31, regardless of the initial date of registration. Any member giving up a registration may re-register said boat if it has not been registered by another person.
- II. All boats not re-registered by January 2 shall be considered unregistered and available for registration after notification to the membership by the Registrar of all boats whose registrations have lapsed.
 - a. Registration requests for these boats shall be submitted to the registrar with a \$5 nonrefundable fee prior to the February members meeting, at which time a drawing will be held to award the registrations.
 - b. The fee collected is either the registration fee for the successful applicant or a donation to the club for the remainder.
- III. *A boat registration shall be defined as inactive when the boat has earned no season points in two consecutive racing seasons. A one-time purchase of one additional year of registration may be purchased by payment of \$30 to the club's registrar/treasurer.*
- IV. Visitors or members of another club shall have a current NAMBA membership.
 - a. Duplicate boats could be allowed for one race only, after which time the newest registrant would have to resolve the issue by making necessary changes to his boat to eliminate the duplicity.
 - b. If duplicate boats attend the same race, they will be placed in different heats up to the final, where all qualified boats would be able to run.
- V. A racing season is defined as all sanctioned events occurring in a racing year (November 1 through October 31).
- VI. The ERCU Board of Directors Treasurer/Registrar shall maintain an updated list of all registered boats, which will be public on the club website after January 2.

G. BOAT APPEARANCE & DESIGN (1/10-Scale)

- I. Boats will be built to 1/10 scale - a scale of 1" (model) equals 10" (actual unlimited) as recorded in the ERCU 1/10-Scale Master Hull Roster.
- II. Dimensional tolerance of plus or minus 10 percent is allowed except overall length shall be plus or minus one inch.
- III. Scale paint and appearance is to be verified by photograph and judged with the model in the water at six feet.
- IV. The underwater hull (bottom, sponsons and the side and sponson non-trips) shall resemble the real boat as closely as possible. Belly pans or blisters, if added, must be no larger than 2.5 inches wide by 4 inches long, exclusive of mounting flanges, effective for all boats registered after January 1, 2008.

H. BOAT APPEARANCE & DESIGN (1/7-Scale)

- I. *Boats will be built to 1/7 scale - a scale of 1" (model) equals 7" (actual unlimited) as recorded in the ERCU 1/7-scale Master Hull Roster.*
- II. *Dimensional tolerance of plus or minus 10 percent is allowed except overall length shall be plus or minus one inch.*
- III. *Scale paint and appearance is to be verified by photograph and judged with the model in the water at ten feet.*
- V. *The underwater hull (bottom, sponsons and the side and sponson non-trips) shall resemble the real boat as closely as possible. Belly pans or blisters, if added, must be no larger than 4 inches wide by 6 inches long, exclusive of mounting flanges.*

I. BOAT APPEARANCE & DESIGN (ALL BOATS)

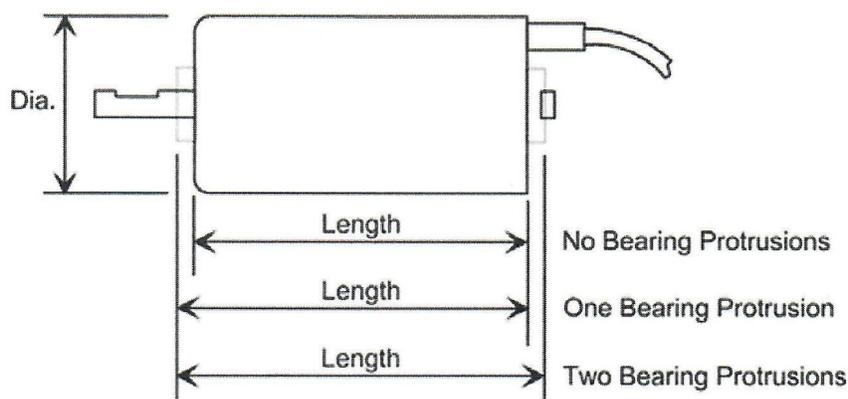
- I. Boats are to be built to resemble the original boat in appearance as closely as possible.
- II. Boats are to race in their most recognizable form, including wings, engine or cowling, and

- graphics.
- III. All Boats shall have a scale/technical inspection at the time they are first registered with ERCU. Boats shall be subject to a Scale/Technical Inspection after any major reconstruction or repair. At the discretion of the Technical Inspector any boat can be subject to a Technical Inspection at any time during an ERCU sanctioned Regatta. At the discretion of the Technical Inspector a Technical Inspection, including motor removal, of the first three finishers of any ERCU Regatta may be conducted.
- IV. A print or digital photograph of the real boat must be included at the time of the request for inspection.
- a. If a club member desires to build and race a boat in any configuration other than “their most recognizable form” a variance will be required.
 - i. The member shall submit in writing the brief history of the boat in question including pictures and a description of why they want to race that boat to the scale inspector. The Scale Inspector and Technical Inspector will review the information and make a ruling within two weeks of the submission. If the request is turned down then the member may appeal to the ERCU Contest Board, which shall make the final ruling.
 - b. The following items are to be included with the boat at the time it is entered into competition:
 - c. Driver, complete from the waist up with proper helmet and life jacket, in open cockpit boats and recommended to be visible in canopy boats
 - d. Windshield or clear canopy glass
 - e. Steering wheel and dashboard with instruments
 - f. Air scoops, vents, exhaust pipes and/or manifolds, and flashpans.
 - g. Bow spoiler; accurate wet sponson detail; open dummy motor or full cowl with the exhaust stacks extending through the cowl (not just glued to outside of cowl).
 - h. All boats shall have a minimum of two orange stripes on the underside of the hull.
- V. Air dams, if installed, must be below the deck line and not extend beyond the bow.
- VI. Sponsons shall have the same dihedral angle on the primary running surface unless otherwise configured on the real boat. Anhedral left sponsons and modern style (Jones, Lucero, etc.) sponsons (inside and/or outside secondary riding surfaces and compound non-trips) are not allowed on boats running in the vintage class. The sponson runners can be modified in both dihedral angle and angle of attack. If ride pads are used, they must be the same dihedral angle as the primary runner.
- VII. The boat must be complete at the start of a race, with all scale and performance items in position and operational.
- a. Any boat that is not complete in appearance shall apply to the official for a variance before starting any subsequent heats.
 - b. No variance will be granted for the first section or heat of a race.
 - c. The penalty for failure to receive a variance shall be heat disqualifications unless the damage occurred in pre-race testing.
- VIII. Upon completion of a heat, sixth place points will be awarded to a boat which loses any part during the running of a heat.
- a. Exceptions are granted if loss is caused by collision or roostertail of another boat (cutting off, chopping, etc.). If the officials cannot determine which boat is at fault, no penalty will be assessed. Officials must announce to the drivers the status (penalized or not) of a boat that loses a part within one lap after the loss occurs.
 - b. This penalty affects only the points awarded, if any, to the boat(s) in question, but not to their heat placement. Nor does it affect the placement of, and points awarded to, other boats in the heat, except for a consolation and final heat, in which the offending boat would be awarded sixth place points and last place finishing position of all boats left running, with those running moving up in the final finish order.
- IX. Damaged and/or incomplete boats must be repaired and/or completed within four weeks of the date of the damage and/or granting of a variance in accordance with the paragraph above to participate in the next scheduled racing event outside of the four-week window unless otherwise specified by the Competition Committee.

J. POWER AND DRIVE TRAIN (1/10-SCALE)

1/10 Scale Vintage	1/10 Scale Classic	1/10 Scale Modern
<p>Batteries</p> <ul style="list-style-type: none"> Up to 12 sub-c battery cells of NiCd or NiMH chemistry, or up to 4S configured Lithium Polymer (LiPo). Total capacity of batteries in allowed chemistries & configurations shall not exceed a total capacity rating of 6,000mAh and a total fully charged voltage of 16.8 volts DC. 	<p>Batteries</p> <ul style="list-style-type: none"> Up to 12 sub-c battery cells of NiCd or NiMH chemistry, or up to 4S configured Lithium Polymer (LiPo). Total capacity of batteries in allowed chemistries & configurations shall not exceed a total capacity rating of 6,000mAh and a total fully charged voltage of 16.8 volts DC. 	<p>Batteries</p> <ul style="list-style-type: none"> Up to 12 sub-c battery cells of NiCd or NiMH chemistry, or up to 4S configured Lithium Polymer (LiPo). Total capacity of batteries in allowed chemistries & configurations shall not exceed a total capacity rating of 6,000mAh and a total fully charged voltage of 16.8 volts DC.
<p>Motors</p> <ul style="list-style-type: none"> Power to be provided by a single motor meeting the following requirements: Approved motors are of an in-runner design and shall not exceed the following dimensions (<i>see diagram on page 5</i>): <ul style="list-style-type: none"> Length: 60mm (2.362 inches). This includes any bearing protrusion. Diameter: 37mm (1.457 inches). <i>Motors are limited to a maximum Kv rating of 2000Kv with a top breakout threshold of 2100Kv.</i> Bearings may be replaced at any time. No gearbox of any configuration is allowed. 	<p>Motors</p> <ul style="list-style-type: none"> Power to be provided by a single motor meeting the following requirements: Approved motors are of an in-runner design and shall not exceed the following dimensions (<i>see diagram on page 5</i>): <ul style="list-style-type: none"> Length: 60mm (2.362 inches). This includes any bearing protrusion. Diameter: 37mm (1.457 inches). <i>Motors are limited to a maximum Kv rating of 2000Kv with a top breakout threshold of 2100Kv.</i> Bearings may be replaced at any time. No gearbox of any configuration is allowed. 	<p>Motors</p> <ul style="list-style-type: none"> Power to be provided by a single motor meeting the following requirements: Approved motors are of an in-runner design and shall not exceed the following dimensions (<i>see diagram on page 5</i>): <ul style="list-style-type: none"> Length: 60mm (2.362 inches). This includes any bearing protrusion. Diameter: 37mm (1.457 inches). <i>Motors are limited to a maximum Kv rating of 2000Kv with a top breakout threshold of 2100Kv.</i> Bearings may be replaced at any time. No gearbox of any configuration is allowed.
<p>Skid Fins</p> <ul style="list-style-type: none"> Mounted to the inside of the left sponson and not to extend beyond the back of the sponson. Size is limited to a maximum of 2" wide by 1" deep and must fit in a 1inch x 2- inch box on inspection. No hook-shaped skid fins are allowed. 	<p>Skid Fins</p> <ul style="list-style-type: none"> Skid/turn fins shall be similar in appearance and location to the full-size boat (mounted to the back of the sponson). The size and precise location shall be determined at the discretion of the owner. To comply with scale appearance rules, skid fins must have a straight leading edge from top to bottom. No part of the skid fin assembly shall extend more than 4" beyond the sponson transom. No hook-shaped skid fins are allowed. 	<p>Skid Fins</p> <ul style="list-style-type: none"> Skid/turn fins shall be similar in appearance and location to the full-size boat (mounted to the back of the sponson). The size and precise location shall be determined at the discretion of the owner. To comply with scale appearance rules, skid fins must have a straight leading edge from top to bottom. No part of the skid fin assembly shall extend more than 4" beyond the sponson transom. No hook-shaped skid fins are allowed.

Propellers <ul style="list-style-type: none"> Any propeller may be used up to a maximum diameter of two inches (50.8mm). The drive dog is defined as not a part of the propeller. 	Propellers <ul style="list-style-type: none"> Any propeller may be used up to a maximum diameter of two inches (50.8mm). The drive dog is defined as not a part of the propeller. 	Propellers <ul style="list-style-type: none"> Any propeller may be used up to a maximum diameter of two inches (50.8mm). The drive dog is defined as not a part of the propeller.
Struts/Shfts <ul style="list-style-type: none"> Any shaft may be used provided it maintains a straight line from hull exit through the strut. 	Struts/Shfts <ul style="list-style-type: none"> Any shaft may be used, and shaft does not need to maintain a straight line from hull exit through the strut. 	Struts/Shfts <ul style="list-style-type: none"> Any shaft may be used, and shaft does not need to maintain a straight line from hull exit through the strut. If the strut on the real modern boat extends behind the transom, the forward face of the propeller hub may be positioned up to 0.5 inches behind the transom.



K. POWER AND DRIVE TRAIN (1/7-SCALE)

1/7 Scale Vintage	1/7 Scale Classic	1/7 Scale Modern
Batteries <ul style="list-style-type: none"> A maximum capacity of 8S Lithium Polymer (LiPo) batteries are approved. Only LiPo batteries with a cell rating of 4.20 or less volts per cell are approved. Maximum charged voltage is 33.84 volts. Only LiPo batteries with a manufacturer's discharge rate of 20C or greater shall be allowed. 	Batteries <ul style="list-style-type: none"> A maximum capacity of 8S Lithium Polymer (LiPo) batteries are approved. Only LiPo batteries with a cell rating of 4.20 or less volts per cell are approved. Maximum charged voltage is 33.84 volts. Only LiPo batteries with a manufacturer's discharge rate of 20C or greater shall be allowed. 	Batteries <ul style="list-style-type: none"> A maximum capacity of 8S Lithium Polymer (LiPo) batteries are approved. Only LiPo batteries with a cell rating of 4.20 or less volts per cell are approved. Maximum charged voltage is 33.84 volts. Only LiPo batteries with a manufacturer's discharge rate of 20C or greater shall be allowed.

<p>Motors</p> <ul style="list-style-type: none"> • <i>Approved motors: NEU 1527 1.5Y 850KV; HET Typhoon 700-98 840 KV; Turnigy SK3-3994 850KV; TP 4040 10Y 830KV.</i> • <i>Motors not on the approved motor list shall not exceed the manufacturer's rating of 860KV. If the motor case is not clearly marked with the KV rating, the owner should be prepared to provide documentation of the maximum KV rating of the motor.</i> • <i>Motor case may not exceed the following dimensions: Length: 105mm (4.134 inches), including bearing protrusions; Diameter 42mm (1.654 inches).</i> • No modifications are allowed to the motor except for providing a flat spot on the shaft and installing 5.5mm connectors. • No gearbox of any configuration is allowed. 	<p>Motors</p> <ul style="list-style-type: none"> • <i>Approved motors: NEU 1527 1.5Y 850KV; HET Typhoon 700-98 840 KV; Turnigy SK3-3994 850KV; TP 4040 10Y 830KV.</i> • <i>Motors not on the approved motor list shall not exceed the manufacturer's rating of 860KV. If the motor case is not clearly marked with the KV rating, the owner should be prepared to provide documentation of the maximum KV rating of the motor.</i> • <i>Motor case may not exceed the following dimensions: Length: 105mm (4.134 inches), including bearing protrusions; Diameter 42mm (1.654 inches).</i> • No modifications are allowed to the motor except for providing a flat spot on the shaft and installing 5.5mm connectors. • No gearbox of any configuration is allowed. 	<p>Motors</p> <ul style="list-style-type: none"> • <i>Approved motors: NEU 1527 1.5Y 850KV; HET Typhoon 700-98 840 KV; Turnigy SK3-3994 850KV; TP 4040 10Y 830KV.</i> • <i>Motors not on the approved motor list shall not exceed the manufacturer's rating of 860KV. If the motor case is not clearly marked with the KV rating, the owner should be prepared to provide documentation of the maximum KV rating of the motor.</i> • <i>Motor case may not exceed the following dimensions: Length: 105mm (4.134 inches), including bearing protrusions; Diameter 42mm (1.654 inches).</i> • No modifications are allowed to the motor except for providing a flat spot on the shaft and installing 5.5mm connectors. • No gearbox of any configuration is allowed.
<p>Skid Fins</p> <ul style="list-style-type: none"> • Mounted to the inside of the left sponson and not to extend beyond the back of the sponson. • Skid fins will be mounted to the inside of the left sponson and are not to extend beyond the back of the sponson. • Size is limited to 3" wide by 2" deep and must fit in a 2" x 3" box upon inspection. • No hook shaped skid fins are allowed. 	<p>Skid Fins</p> <ul style="list-style-type: none"> • Skid/turn fins shall be similar in appearance and location to the full-size boat (mounted to the back of the sponson). • The size and precise location shall be determined at the discretion of the owner. • No part of the skid fin assembly shall extend more than 5" beyond the sponson transom. • No hook-shaped skid fins are allowed. 	<p>Skid Fins</p> <ul style="list-style-type: none"> • Skid/turn fins shall be similar in appearance and location to the full-size boat (mounted to the back of the sponson). • The size and precise location shall be determined at the discretion of the owner. • No part of the skid fin assembly shall extend more than 5" beyond the sponson transom. • No hook-shaped skid fins are allowed.
<p>Propellers</p> <ul style="list-style-type: none"> • Only Graupner K Series 57L two blade propellers or RCBoatbitz (CNC aluminum) 5514r two blade, unmodified, are allowed, and a portion of the propeller must be under the transom. • The drive dog is defined as not a part of the propeller. 	<p>Propellers</p> <ul style="list-style-type: none"> • Only Graupner K Series 57L two blade propellers or RCBoatbitz (CNC aluminum) 5514r two blade, unmodified, are allowed, and a portion of the propeller must be under the transom. • The drive dog is defined as not a part of the propeller. 	<p>Propellers</p> <ul style="list-style-type: none"> • Only Graupner K Series 57L two blade propellers or RCBoatbitz (CNC aluminum) 5514r two blade, unmodified, are allowed, and a portion of the propeller must be under the transom. • The drive dog is defined as not a part of the propeller.
<p>Rudders</p> <ul style="list-style-type: none"> • Double rudders are not allowed, unless present on the real unlimited (verified by photograph). 	<p>Rudders</p> <ul style="list-style-type: none"> • Double rudders are not allowed, unless present on the real unlimited (verified by photograph). 	<p>Rudders</p> <ul style="list-style-type: none"> • Double rudders are not allowed, unless present on the real unlimited (verified by photograph).

Struts/Shafts <ul style="list-style-type: none"> Any shaft with a minimum diameter of 3/16" may be used. 	Struts/Shafts <ul style="list-style-type: none"> Any shaft with a minimum diameter of 3/16" may be used. 	Struts/Shafts <ul style="list-style-type: none"> Any shaft with a minimum diameter of 3/16" may be used.
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L. CONTEST DIRECTOR RESPONSIBILITIES

- I. The Contest Director (CD) shall be responsible for all planning and preparation connected with the event he or she is sponsoring.
- II. The CD is the primary official of the regatta.
 - a. The CD is responsible for the smooth, efficient, and fair progression of the regatta.
 - b. The CD shall make certain that the regatta officials perform their duties.
- III. Where scheduled regattas have no "Contest Director", the Contest Board, at its discretion, may assign a volunteer, or volunteers to execute the responsibilities thereof. Specific duties of the Contest Director are as follows:
 - a. Selection of race name, format and shall make the determination of running the classic and modern classes together or split.
 - b. Acquisition of race date, site and sanction, and determination of starting time
 - c. Procurement of race officials and workers including referees, course judges, timers (when needed), one or more pit boss(es) and a driver's representative.
 - d. Acquisition of all equipment necessary to conduct the race including buoys, scaffolding, PA system, timing equipment, and recovery craft.
 - e. Notification of all registered ERCU owners of the race particulars at least two weeks prior to race day.
 - f. Acquisition of trophies, if desired to augment the club-supplied awards package.
 - g. Engraving of perpetual trophies listing the winning boat and driver in each class.
 - h. Set up and tear down of race equipment.
 - i. Collect race fees and submit all proceeds to the club treasurer.
 - j. Furnish race results and race narrative to the club statistician and webmaster.
 - k. In case of fewer than three boats in a heat, the CD will decide whether to run the heat.

M. RACE POINTS

- I. Points will be awarded per position of finish in a heat on the following basis:

Preliminary Heats & Finals		First Connie	Second Connie
First Place	400 points	200 points	100 points
Second Place	300 points	150 points	75 points
Third Place	225 points	113 points	56 points
Fourth Place	169 points	85 points	42 points
Fifth Place	127 points	64 points	32 points
Sixth Place	95 points	48 points	24 points
Seventh Place	71 points	36 points	18 points

- I. Season points do not transfer except to an identical replacement hull.
- II. Season points and perpetual trophies cannot be awarded to non-member visitors and/or guests.
- III. The total points scored by a driver and any one boat during a sanctioned regatta shall be added to the season driver points standings. If a driver pilots two or more different boats in a single regatta, he must choose, before the first heat, the boat from which he will receive driver points.
- IV. All sanctioned races count towards season points. Season high point trophies for boats and drivers shall be awarded based on the top 10 finishes of the racing season.
- V. Substitute drivers are allowed to compete, with notification given prior to the one-minute gun. If a substitute driver is named, the boat will receive season points, but the substitute driver will accumulate season points only if not registered in the same class at that race.
- VI. The number of heats in a section will be determined prior to the section draw.
 - a. A driver with more than one boat entered in a race will have his second boat placed

- automatically into the second following heat, where possible, within that section during the preliminary races.
- b. If both boats qualify for the consolation or final heats, a substitute driver can be named for one of the boats, or one of the boats can be withdrawn, at the boat owner's discretion.
- VII. Race formats shall be limited to the Total Points Plan or Love Plan (see Appendix A) and are to be based on the number of entrants as follows:
- a. Four-to-six boats will all race in together in each heat, with the overall event winner based on the race format selected by the contest director.
 - b. Seven or more boats will run in multiple heats in each section, with the maximum number of boats not to exceed six in any preliminary heat.
 - i. The final will be the six boats with the highest accumulated points for the day, plus the winner of the first consolation race running as a trailer.
 - ii. The second place boat in the consolation race will be the alternate to the final.
 - iii. One consolation heat will be run when less than 15 boats are entered in a race, and two consolation heats will be run with 15 or more boats if at least three boats are able to run in the second consolation heat.
 - iv. No alternate will be assigned to the second consolation heat.
 - v. The winner of the second consolation heat may be the trailer in the first consolation heat at the discretion of the race contest director.
- VIII. The trailer boat shall not cross the start line less than five seconds after the start gun.
- IX. The classic and modern classes shall run together until such time as a vote of the membership determines there are enough to allow the classes to run separately. Until that time, each class's season championship points shall be totaled together as a single modern class.

N. RACE RULES

- I. Three or four preliminary heats plus consolation and final heats shall constitute a race.
- II. Officials: The official judges for each heat will consist of a referee and two turn judges.
 - a. The referee is the sole authority for the conduct of the heat, with the turn judges assisting the referee with their calls.
 - b. The referee and judges will be designated as the entries from the previous heat, or someone assigned by one of those individuals to take his/her place.
 - c. A heat will not start until the three judges are in place to observe the heat.
- III. Officials' calls are final.
- IV. All disputes MUST be handled through the Drivers Representative and NEVER through direct contact with officials. Failure to comply with this requirement shall be considered Unsportsmanlike Conduct and may be penalized as appropriate.
- V. All heats will be five laps run in a counterclockwise direction.
- VI. A **one minute, thirty second** audio countdown clock will be used to start each heat. The start of the race is at the sound of the horn/gun.
- VII. A boat must be in the water and commence running no later than the 30-second mark on the countdown and may not be touched inside the 30-second mark.
 - a. A boat not meeting these requirements will be disqualified from that heat. Once running, a boat must remain in constant forward motion.
 - b. Any boats stopping **or coming off plane** on the course or in the infield after the 30-second mark and before the start shall be assessed a one lap penalty.
- VIII. The "mill start" will be used in which all boats must fully circle the right and left turns (in that order) before being allowed to enter the infield.
 - a. **No boat may cut the course after the clock strikes five seconds**
 - b. **After the five second mark, any boat that crosses the starting line before the clock is at zero has not started and must round the full course to make a start.**
 - c. Cutting directly across the course from the pit area at any time, excluding qualifying and time trials attempts, is a one lap penalty.
 - d. The infield can be entered prior to the start only between the exit buoy of the left turn and the entry buoy to the right turn.
 - e. Entry into the infield at any other location is a one lap penalty.
 - f. Boats entering the racecourse from the infield must do so only onto the back stretch between the exit buoy of the right turn and the entry buoy to the left turn and must yield

- right of way to boats on the course. Failure to do either is a one-lap penalty.
- g. If a buoy is missed during the mill, a penalty lap can be avoided by once again fully circling the right and left turn in order.
- IX. A one-lap penalty shall be assessed if a boat cuts inside a course marker or when more than 50 percent of a boat jumps inside/over a buoy.
- a. Disqualification will occur upon the third occurrence in any heat.
- b. No penalty shall be assessed for a boat that touches a buoy on the outside (less than 50 percent) causing no damage or displacement.
- X. A \$10 fine payable to ERCU shall be assessed for damaging or destroying each ERCU buoy during an event.
- XI. The cost of replacing/repairing damaged or destroyed buoys or other property not owned by ERCU at any time during an event shall be the responsibly of the offending member to reimburse those costs to the ERCU Treasurer before being allowed to participate at another ERCU event.
- XII. All boats must maintain a straight line from the exit pin to the starting line at the beginning of a heat or be assessed a one-lap penalty.
- XIII. Circling the infield after the start of the race will result in a one-lap penalty.
- a. Boats having completed the required number of laps for a finish shall immediately enter the infield from the backstretch and park until all boats have finished or instructed by referee to return to the pits. Failure to do so is disqualification from the heat.
- XIV. All race rules and driving rules apply at all times on race day.
- a. Races will begin with a drivers' meeting held no later than 30 minutes prior to the announced start.
- b. All boats and drivers must be registered prior to the driver's meeting.
- c. Drivers must be present at the drivers' meeting to run in the first flight of heats.
- d. Drivers arriving after the first flight is drawn may participate, starting with the second flight
- XV. Drivers shall always have a **NAMBA member** spotter when their boat is on the course.
- a. The spotter will inform the driver of race conditions, count laps, and assist the judges in calling out "dead boat" status.
- b. This provision applies to pre-race testing also to conform to NAMBA Safety Rules.
- c. Except for rookies, a one spotter may assist up to two drivers.
- d. As a courtesy to others, drivers and spotters should remain on the scaffolding until all boats have completed their race.
- XVI. Stoppages and Restarts:
- a. **The** Referee may stop a heat at any time for any reason.
- b. Boats and/or drivers that are responsible for a heat stoppage shall not be allowed to participate in a re-start of that heat.
- c. Boats and or drivers failing to start a heat that has been stopped together with those not running (for any reason) at the time of the stoppage shall be allowed to participate in the restart of the stopped heat.
- d. Boats and or drivers that are responsible for a heat stoppage citing safety as their reason for calling for a stoppage shall be allowed to participate in the restart only if the condition cited by the individual responsible for the stoppage is ratified by the Referee as a valid safety concern warranting a heat stoppage.
- XVII. The process of protesting an official's call of a penalty during a heat is as follows: The turn judge makes a call, which is relayed over the public address system by the chief referee. **AFTER THE HEAT**, the violating driver may go to the driver's representative with his/her appeal. The drivers' representative will consult the turn judge and chief referee for an official citation of the specific rule that was violated (with identification in the rule book), and what happened. After a decision is made by the officials, the driver's rep will notify the violating driver. **ALL DECISIONS ARE FINAL.** Outbursts in the pit area or on the drivers stand will be penalized in accordance with rule P.3.
- XVIII. In the case of ties, the highest accumulated season points during the current racing season between the boats involved will determine which boat will advance. For the first race of the year, the previous season's total high points for the boats involved will be used.

O. DEAD BOAT RULES

- I. The definition of a dead boat is “a boat on the course that is not moving, as called by a judge”.
- II. Spotters must alert their driver if a boat spins out or stops on the racecourse.
 - a. The call should state: “dead boat” and the location (right turn, left turn, back stretch or front stretch) of the dead boat, with an estimation of what lane the boat is in.
- III. Heat judges will make the official “dead boat” call.
- IV. If two boats are stuck together and called dead, they must remain dead until the heat is complete.
- V. All boats will be given five minutes to finish a heat, following the finish of the first boat.
- VI. Striking a called dead boat at any time during the race day will result in disqualification for the striking boat and the driver for the remainder of the race, and MAY be fined up to \$75
 - a. The race referee, at his discretion, may reduce the penalty to disqualification from the heat if conditions warrant (i.e.: Inadvertent action, not enough time to respond, difficult to see, minor damage to struck boat, etc.).
 - b. If the offense occurs during the final heats of the day (consolations or final heat) the driver and offending boat will be disqualified for that day, and lose all points earned prior to the penalty.
 - c. Disqualification under this rule means the driver is disqualified from driving ANY boat for the remainder of the event.
 - i. If said driver also has a registered boat(s) in other classes, he or she may “hire” a replacement driver to drive that/those boat(s) in the remaining heats of the event.
 - ii. In the instance that a driver is disqualified for hitting a called dead boat, that driver will be required to start his or her next three heats as a trailer.

P. COLLISION RULES

- I. The definition of a collision is “contact between two boats that impedes the progress of one boat by another and/or causes visual damage (broken or missing parts, hull cracks) before and during a heat, or any time two boats are on the water at the same time.
- II. A boat that strikes another boat, causing it to not finish the heat, will be disqualified.
- III. If a boat is taken out of a heat in a collision or because of a penalty on another boat, the offended boat will be awarded 169 points as compensation.
- IV. If a boat is off plane, the driver must yield to other boats before trying to re-enter the racecourse, to not interfere with the progress of other boats.
- V. Interference will result in a one-lap penalty.

Q. CONSOLATION AND FINAL HEAT RULES

- I. *To participate in a consolation heat or final heat, it is a prerequisite that a boat score points in a preliminary heat.*
- II. A trailer boat for the final heat is determined by a consolation heat.
 - a. After the top six boats are determined by total points for the day, the next six boats are eligible for the first consolation heat.
 - b. If any of the six boats are not able to compete, the boat with the next highest point total can enter the heat.
 - c. If 15 or more boats are entered in the race, a second consolation heat will be held, if at least three boats are able to start.
 - d. All heats will be filled to six boats if there are enough qualified entries.
- III. Consolation heats are run for partial points per the table in the race points section of this rulebook.
 - a. The winner of a consolation heat may forfeit the points earned to enter as a trailer in the next heat.
 - b. If a driver chooses to decline advancing to keep the points, the option to advance is given to the second place boat in the consolation heat.
- IV. Second place in the first consolation heat becomes the alternate for the final.
- V. The trailer boat may move up to the front line only if one of the regular starters is not in the water by the 30-second mark of the countdown prior to the start of the heat or if one of the regular boats is called a dead boat and is not able to start.
- VI. An alternate boat must be in the water prior to the one-minute mark of the countdown.

- a. The alternate may start as a trailer but must immediately pull off the course if all other boats in the heat make a legal start.

R. **PIT SAFETY**

- I. Charging of Lithium Polymer (LiPo) batteries at the race site shall only be done with the cells placed on a non-combustible surface.
 - a. Individuals charging LiPo batteries at a race site must have in their possession in the immediate area of the batteries under charge a fully charged fire extinguisher with a NFPA/UL rating that includes Class C.

S. **DRIVING RULES**

- I. Each driver shall show proof of current North American Model Boat Association (NAMBA) membership at every race when registering.
- II. Drivers must maintain their lane and leave enough room for other boats on the racecourse.
 - a. The referee has the discretion to issue a warning, a lap penalty, or a disqualification, based on the severity of a driving infraction.
 - b. The goal of the club is scale racing for enjoyment – no one benefits from reckless driving and damaged boats.
 - c. Please race with the respect of others following the Appendix A rules of Driving Etiquette.
- III. When another boat is overtaking your own, you should maintain your lane and not try to get out of the way.
 - a. It is the responsibility of the overtaking boat to make the pass safely.
- IV. A driver may ask a judge for an explanation of a call, but at no time will an official listen to an argument.
- V. Drivers may clear their propellers during a heat only when determined by the officials that conditions may warrant this exemption.

T. **PROTESTS**

- I. In all sporting events, situations develop that require judgment calls or decisions on the part of contest officials and all such decisions made herein will be final and may not be protested.
- II. Continued verbal protests, harangues and/or other abuse, either direct or indirect of any contest officials will be considered unsportsmanlike conduct and will be just cause to bar that contestant or crew person from any further participation in that contest.
- III. All protests for motors and hulls must be made in writing prior to the final heat of the class and must be accompanied by a \$25 protest fee.
 - a. If the protest is found to be invalid, \$10 will go to ERCU and \$15 will go to the owner of the protested boat.
 - b. If the protest is found to be valid, the fee is to be returned to the protester.
- IV. A protested hull or motor will be measured by a committee made up of the Contest Director, the ERCU Technical Inspector or his authorized representative present at the event, and one other ERCU member other than the protester or owner of the protested motor or hull.
 - a. Measurements and inspections will be made in the presence of the owner and results thereof will be made known in writing and signed by each member of the three-person committee prior to leaving the event site and shall then be forwarded with their decision to the ERCU Secretary and the ERCU Chairman.
- V. A protested hull, battery, or motor will be allowed to run in the event(s) entered. However, any points, places, etc. won will be held pending the resolution of the protest.
- VI. A boater that has a motor under protest will be allowed to complete the racing for the day.

U. **SPORTSMANSHIP**

- I. The goal of the club is to encourage cordial competition; however, every boat owner, driver or crew member shall be subject to disciplinary action for unsportsmanlike conduct in connection with the regatta from the time of arrival at the race site until two hours after the completion of the contest.
- II. Unsportsmanlike conduct shall be defined as any act which either:

- a. Tends to bring racing in disrepute; and/or
 - b. Endangers the person or property of others; and/or
 - c. Constitutes dangerous, careless, or reckless operation of boats or equipment.
 - d. Continued verbal protests, harangues and/or other abuse, either direct or indirect of any contest officials or other members will be considered unsportsmanlike conduct and will be just cause to bar that contestant or crew person from any further participation in that contest.
- III. The contest director and two board members shall have sole power to impose a penalty for unsportsmanlike conduct at a race and shall notify the offending party of the offense as soon as possible.

V. ROOKIE RULES

- I. A driver is considered a rookie for an entire racing season if, prior to the first sanctioned ERCU competition of the racing season, the driver has accumulated less than 2,500 career points in sanctioned 1/10 scale electric competition.
- II. Rookie points are kept separately for each class.
- III. To qualify for racing, a rookie member must operate his boat in a controlled and consistent manner for five laps, successfully complete the Appendix B Drivers Test and secure the approval of the race official to participate.
 - a. Rookie drivers once qualified remain qualified for the remainder of the racing season in which they qualified.
 - b. Rookie drivers must start from the trailer position until they accumulate 1,200 career points in ERCU.
 - c. If a rookie driver is an experienced driver in other clubs, or in ERCU, but new to a certain class, that rookie must start from the trailer position for two consecutive heats, and
 - i. Complete five penalty-free laps in each before being allowed to start on the front line.
 - ii. Without accomplishing both requirements that rookie will be required to adhere to rule Q.3.2

W. GOLD CUP RULES

- I. Optional qualifying Time Trials will be held for a minimum of one hour prior to the drivers meeting.
- II. After completion of the Time Trial Period, Season High Points shall be awarded and applied to the event total points in order of time trial speed (Table 2):
 - a. Points shall be awarded based on time trial speed for the hull that is raced in Heat 1 on race day in the event an owner qualifies both a primary and a back-up hull.
 - b. Boats must have time trial speeds during the time trial period to be awarded time trial points.
 - c. Points awarded from the Time Trial Period shall apply to determining eligibility for the Final Heat (below).
 - d. The Gold Cup shall consist of four flights of preliminary heats instead of three, plus the consolation and final heats.

Qualifying Position	Points
First	100
Second	80
Third	70
Fourth	60
Fifth	50
Sixth	40
Seventh through last	30 each

X. APPEALS, WAIVERS & DEVIATIONS

- I. Appeals of any decision made by the board of directors, or race officials, may be appealed through an appropriate and deliberate process.
- II. An appeal shall be brought forward to the chair of the board of directors who will initiate a

process that educates the general membership of the basis of the appeal, then conduct a vote of the members to the appeal. A two-thirds (66.7 percent) majority of those who vote on the appeal is required to overturn a rules decision made by the board or officials.

- III. The same process shall exist to determine decisions on requests for deviation and waiver of these rules by members for unusual or exceptional circumstances.
- IV. Rulings by the appeals process, on all such requests, are final.