

## 1/10 SCALE HYDROPLANE RACING

*Classic Thunder is a club whose goal is to emulate the competition and style of real unlimited hydroplane racing. All boats are 1/10th scale replicas of actual hydroplanes. The club emphasis is on quality workmanship and scale accuracy. Unique features of the club include electric power, scale skid fins for realistic cornering, and left hand turning.*

*All boats competing in Classic Thunder are separated into two divisions.*

**Division I:** *Vintage hulls that competed in the 50's and 60's plus some round nose boats that competed from 1970 and later, with the approval of the Executive Committee.*

*and*

**Division II:** *More modern hulls that competed from about 1970 through present time.*

## [2010 Classic Thunder Rule Book](#)

[\\*\(Click here to Download and print pdf file of 2010 Rule Book\)](#)

### **Club Membership**

Club membership is **\$10.00**. You must be a club member to drive at club events.

Boat registration is **\$5.00**.

Entry fee is **\$3.00** per race or **\$25** prepaid per season. Entry fees are non-refundable.

To drive at a Classic Thunder event, **you must belong to the NAMBA (North American Model Boat Association).**

#### **Club membership, boat, and race fees provide:**

Race schedule, Club rulebook, Club directory, Web Site and club updates, Banquets, Ribbons or Trophies, and club supplies

### ***Boat Registration, Tech. and Appearance***

**Members are allowed** two boat registrations per division at any one time.

**A boat must be registered** and pass technical and appearance standards to compete in Classic Thunder events.

Pre-registration (prior to paying a registration fee) and technical and appearance guideline assistance can be obtained by email, regular mail or in person with the registrar [Mike Krone](#) or the Appearance and Technical Inspector [Jeff Howard](#). To help clarify scale or appearance issues prior to construction, we recommend that you submit an initial **Build / Registration Form** with your pre-registration. This will also give you a chance to get more information from the Appearance Inspector about the boat you intend to build. It may save you from having to make changes after the boat is already built.

A **Build / Registration Form** must be completed for each boat and signed by the Registrar and Appearance / Technical Inspector before it will be allowed to enter competition.

**\*Download Build/Registration Form for Div 1 in**

[Word Format](#) or [PDF](#)

**\*Download Build/Registration Form for Div 2 in**

[Word Format](#) or [PDF](#)

**Boats are registered** by mail or in person with the Registrar. Include fees along with a **Build / Registration Form**. Boat registrations are on a first come first serve basis.

**At the end of the season**, a member has the option to keep or forfeit their registrations. This option lasts until January 1.

**A registered boat must compete** in at least three races during the season for the registration to remain valid. A member that fails to race a registered boat is not allowed to re-register that boat before January 1.

### **What boats are allowed to be built?**

Any boat that was actually built (some sort of photo verification is necessary if in question) and did, or was capable of, racing in the unlimited class of hydroplane racing the year it existed. Prototype boats that were “plans only” are not allowed.

### **Boat appearance and design:**

All members will be required to build their boats as closely as possible to the original boat and have a photograph of the real boat for verification. This includes paint colors.

**Tolerances on the length and width** of club hulls will be (Length +or – ½”) and (Width +or – 10%). Length and width tolerances will be enforced on hulls built for 2008 and later seasons. Hulls that raced in the club prior to the end of the 2007 race season will be allowed to run even if outside of these tolerances. Dimensions will be confirmed by the [RCU master hull roster](#). If it is not listed, the builder will need to provide documentation of the dimensions as verification to the tech inspector.

**Offset cowlings and Asymmetrical sponsons** should be accurately represented.

**Boats must run in their most recognizable form** for the year of the real unlimited that is registered. A real boat that raced damaged can not be the version used as a pattern for the model, no cop-outs.

**The following items must be present** for a boat to enter competition: (If applicable)

Driver complete from the wait up with proper helmet

Life jacket

Windshield

Steering wheel and dashboard with instruments

Air scoops or vents

Exhaust pipes and or manifolds

Flash pans

Bow spoiler

Accurate wet sponson detail

Radio antennas must be painted black or be music wire.

**Full cowl or open dummy motor**, verified by photo, stacks may not simply be glued to outside of the cowl on full cowl boats. Stacks must come through the cowl.

**Boats are to be built 1/10th scale** to fit the [RCU master hull roster](#). Scale paint job to be verified by photo or Newton plans.

**An air dam** may be added to the bottom of a boat, regardless of if the real boat ran with one. However, it must be back 1" from the front of the sponson tunnel (or from the ram wind/bull nose in the case of pickle forked boats). They can be no more than 3/8" tall. They must be made of clear plastic or painted to match the bottom of the boat. They can not be an obvious change to the scale look of the model while on the water.

**Losing any significant part of the boat** (something necessary to the performance of the real boat) during a heat is a disqualification and the boat must stop. For instance, the motor, driver, or cowl, if no dummy motor is underneath. To compete in following heats, the lost part(s) must be replaced within reason.

**Damaged boats** must be repaired by the 2nd race after damage has occurred. To re-enter competition, the boat must pass the appearance inspection.

If a boat, for reasons other than contact or crash, **loses non-essential parts** during a heat, the driver will receive a warning. If the same part comes off on the race course in the boat's next heat run and **consecutive** heats run thereafter, the driver will receive a **one lap penalty**. This penalty is **limited to one lap per heat** and will not carry over to the following race event. The driver/owner may choose to run without the part for the remainder of the race day, but must still run the boat in its most recognizable form in the next race. Reasonable efforts must be taken to keep the part on the boat and repairs may be subject to inspection before the boat will be allowed to race again.

**All boats must have a boat stand** with prop guard. The guard must not allow hands to have direct access to the propeller while the boat is on the stand.

**Technical Inspections:**

**For a boat to compete in Classic Thunder events**, it must first pass a tech/appearance inspection covered in these requirements. If a boat fails its tech/appearance inspection, but a majority of the club executives agree that the boat would not have a competitive advantage, it could be allowed to compete under the damaged boat rule. If boat repairs or other changes are made to a boat after it has passed an inspection, the owner/driver should ask for a new inspection. A reminder of this will be given at the drivers meeting. A spot inspection can be given at any time during the racing season.

**The top four finishers** of a final heat and the consolation heat winner may receive an inspection to check for rule compliance. A competing boat that fails a post heat inspection will be penalized as follows:

First offense: Disqualification from the heat.

Second and subsequent offenses: Disqualification from the heat and from the next race.

## ***Hull and Running Gear Specifications***

**Club Battery Rules:** (rules applies to both divisions)

**Up to 14 sub-C NiMH** and **NiCad** type cells of any maH rating or up to **4 Lipo cells** (i.e. 4S1P or two 2S1P configuration).

**It is recommended that Lithium Polymer cells** have a minimum 3300 Mah capacity and minimum 20C cell rating. **ALL MEMBERS MUST READ AND SIGN THE [LIPO SAFETY AGREEMENT SHEET](#).**

\*Download the Lipo Safety Agreement Sheet in

[Word Format](#) or [PDF](#)

\*Download other Lipo Safety Tips (not required, but recommended) in

[Word Format](#) or [PDF](#)

**Anyone found out of compliance with the Lipo Safety Agreement will be given ONE OFFICIAL WARNING per race season. An official record will document that the warning has been given. Any additional non-compliance of the warned party will result in his or her immediate disqualification from the current race.**

### **Division I specifications:**

**Division 1 boats will run with one Scorpion HK3026-1210 motor.**

**Skid fins** will be no longer than 1 1/2 " from front to back and will be no deeper than 3/8". All skid fins must be mounted against the inside of the left sponson. No curved skid fins. It can be angled, but must be flat from the water line down.

**Only "Off the Shelf" propellers** that are generally available on the market to all hobbyists are eligible to be run. Modifying these propellers is allowed. (No custom-made propellers.)

A portion of the propeller must be under the boat's transom.

**The transom** is the aft vertical flat surface in which the rudder is attached.

**The rudder** must be attached to the boats transom and the leading edge cannot be more than 1 1/4" away from the transom.

Boats must run a straight shaft of any diameter from a straight motor coupler through the propeller. No flex drives, gearboxes or universal joints are allowed.

No double rudders.

No **belly pans**.

No **anhedral angles** on the sponson main ride surfaces.

### Division II specifications:

All rules are the same as those in Division I except as noted below:

**Any motor or motors** may be used.

**Flex drives** are allowed but must be mounted so that a portion of the propeller is under the transom and the cable runs inside a straight tube under the hull.

**Skid fins** will be not larger than 1 1/2" deep (Measured from the bottom of the sponson) and 1 1/2" front to back. The total skid fin must fall within the 1 1/2" by 1 1/2" window. Any fin shape within this window is considered legal. No curved skid fins. The skid fin must be flat from the water line down. However, it can be mounted at an angle.

**The rudder** must be attached to the boats transom and the leading edge cannot be more than 1 3/4" away from the transom.

**Anhedral angles** on the sponson main ride surfaces are allowed.

**Belly pans** are allowed.

**On boats with driver canopies**, the canopy must be clear enough to see the driver inside and the driver must be visible from his armpits and up.

## ***Race Rules***

There will be **absolutely** no boats running on the water while the racecourse is being set, or at **any time the chase boat is otherwise occupied and in use. There are no exceptions.** A violation of these rules will result in a **Race Penalty**. (NAMBA RULE, SAFETY SECTION #8 Rule 9. A retrieve boat may not be in the water at any time when a model boat is running in the water.)

**All races will begin at 11:00AM**, with the drivers meeting taking place 10:30AM. Exceptions to this, like the Gold Cup race will be announced one week prior to the event (see Special Rules section). Drivers must be present at the 10:30AM roll call to be drawn into the first heat. Drivers late for the meeting will start their first heat as a rookie.

### Race Officials:

**Each heat of competition shall have 3 officials** to call the heat. The heat head official will call the start and inform participants of hazards and penalties called. The other two officials are to observe the corners

and make calls if necessary. They will contact the head official by any means available. Only the 3 officials will make a call, with no outside commentary from non-officials. The heat head official will make the final determination and inform the offending parties. The penalized driver should acknowledge the call to the heat head official. The heat head official is also responsible to start the clock when the course is clear and have a chase boat volunteer ready to go out to retrieve dead boats or fix dislodged buoys if necessary.

All racing rules will also apply **during the mill.**

**A race is considered official** when three boats make a legal start.

**Preliminary and final heats** are five laps run counter-clockwise. A race may be planned and run with more or fewer laps based on course size, but must be approved a week in advance by the Classic Thunder board. The change must also be announced to the racers a week prior to the event. A race day adjustment in the number of laps per heat can be made due to course size, but only by majority decision of the club officials in attendance at the driver's meeting.

**A five-minute audio count down** clock will be used to start each heat. Unless a flag has been approved for use. (See special rules section for flag starts.)

**A boat must be in the water** by the 30 seconds on the count down and may not be touched inside the 30-second mark. A boat not in the water by 30 seconds or touched inside the 30 second mark is disqualified and will not be allowed to start that heat.

**All boats must fully circle the right and left hand turns** (in that order) immediately prior to making a start. 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.

**A missed buoy** once the heat has started is a one-lap penalty.

**Three missed buoys** in the same heat by the same boat will constitute a **DNF**. As soon as it is safe to do so, the offending boat must immediately be pulled to the infield.

**A boat may "park" out on the course** and await the start but may not be passed the point buoy on the right hand turn as seen from the driving area. Once a boat passes the right hand point buoy, it must remain on a plane to the start. A boat off plane past the right hand point buoy will be given a one-lap penalty.

**All boats must maintain a straight line** (parallel to the buoys) from the exit pin to the starting line at the beginning of the race. This means no lane changing in this area. Drivers/boats changing lanes at this time will be given a one-lap penalty.

**Circling in the infield** once the race has started is a one-lap penalty.

**All ties will be decided** by number of laps completed.

**Jumping the gun** at the start is a one-lap penalty.

**Hitting a buoy and knocking the visual devise** (Ball or some other marker) completely off the buoy is a one lap penalty. Hitting a buoy that is missing the visual devise is a one-lap penalty. Hitting a buoy without dislodging the visual devise off the buoy is a legally passed buoy.

**A RACE PENALTY results in disqualification from the heat** (or the immediate heat) and will be required to make 3 trailer starts for the next 3 heats entered.

**Causing an accident** is a **RACE PENALTY** as determined by the race officials. Definition of an accident is; contact between two boats that impedes the progress of **one or more boats** by another and/or causes visual damage (broken or missing parts, hull cracks) before and/or during the race.

**Striking a called dead boat** is a **MAJOR RACE PENALTY (Dead Boat)**.

Striking a called dead boat will also incur a \$25.00 penalty. The money will be paid to the damaged boat camp before the guilty driver is allowed to compete in the next event. The damaged boat camp may choose to defer the money in which case the penalty money will be paid to the club treasury.

**The official definition of a dead boat** is a "called boat" that is not moving **or a boat which is on the infield and is not moving.**

A **MAJOR RACE PENALTY (Dead Boat)** results in disqualification from the heat (or the immediate heat) and disqualification from the next 2 heats of racing. This penalty may be enforced into the next race event depending when the infraction occurred. This covers the **BOAT** in the Division the incident occurred. If the drive has two boats entered in the event, the boat not involved in the incident can still be run.

**Striking a duck** is a **MAJOR RACE PENALTY (Duck)**.

Striking a Duck will also incur a \$25.00 cash penalty. The money will be paid to the club treasury before the guilty driver is allowed to compete in the next event.

A **MAJOR RACE PENALTY (Duck)** results in disqualification from the heat (or the immediate heat) and disqualification from the next 2 heats of racing. This penalty may be enforced into the next race event depending when the infraction occurred. This covers the **DRIVER** of the boat in the Division the incident occurred and includes any boat(s) in that same Division. If the driver has two boats entered in the same Division of an event, both boats are not allowed to run.

#### **Race points:**

**In order to score points in a heat, a boat must have made a legal start before another boat in the heat has made a legal finish.**

**Points are awarded** the same as the real unlimiteds.

1st Place = 400 points

2nd Place = 300 points

3rd Place = 225 points

4th Place = 169 points

5th Place = 127 points

6th Place = 95 points

**Season points do not transfer** to an identical replacement hull. A hull is defined as the center section of the boat. A replacement hull will be scored independently. Sponson replacement would be considered okay.

All races count towards season points, no dropped races.

**Substitute drivers** are allowed, but must be declared prior to the start of the five-minute clock.

**Race formats** are based on the number of entrants as follows: (A minimum of three boats to make a legal race)

3-5 boats: Race based on total points

6 boats: 5 boat final, no consolation race or trailer

7 or more boats: 5 boat final plus winner of the consolation as a trailer,

**Second place in consolation** race is first alternate.

### **Consolation and Final heat rules:**

**A trailer boat for the final heat** will be decided by a consolation race. The first five boats in the final heat are determined by accumulated point earned in preliminary heats. The next six boats are eligible for the consolation heat. If the fifth and sixth place boats are tied in points for the final, both boats are automatically advanced to the final. The consolation race would determine the alternate spots only. If the fifth, sixth, and seventh place boats are tied for placement in the final, the fifth, sixth and seventh placed boats will race in the Consolation heat with the eighth, ninth and tenth place boats. The eighth, ninth and tenth place boats will start the Consolation heat from the trailer position. The Consolation heat winner can advance to the Final heat as a front line starter while the second place finisher can advance as the trailer in the Final. Third place in the Consolation can be the alternate.

**Consolation heats are run for half points.** Those who qualify to advance from the Consolation race may forfeit the half points to run in the final. If a driver chooses to decline advancement and keep the half points, then their option falls to the next in line per consolation finish order.

**Second place in the consolation** becomes the first alternate for the final.

**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 count down. Otherwise, the trailer will start 5 seconds after the primary count down expires.

**The alternate boat for the final** should be charged and ready to launch. If a final heat boat withdraws or is unable to start, the alternate boat will be allowed to launch by the 20-second mark of the count down, and then start as a trailer.

## ***Driving Rules***

**All driving rules apply at all times on race day.**

**All drivers are required to count their laps** out loud as completed. This is very important to keep track of the boat positions and the total number of completed laps. A driver will be reminded only once and then a lap penalty will be assessed.

**Maintain your lane** and leave enough room for the other boats on the racecourse. It is always better to take a second place than to try a difficult or impossible move that could result in an accident. The goal of

this club is scale racing and no one benefits from reckless driving and damaged boats. Please race with respect to others.

**When another boat is overtaking yours**, you should maintain your lane and not try to get out of the way. It is the responsibility of the overtaking boat to make a safe pass.

**Drivers must immediately alert the other drivers** if their boat spins out or dies on the racecourse. If failing to call a dead boat results in an accident, the dead boat driver will receive a **RACE PENALTY**. (Heat judges will also relay this warning to the other drivers).

**Official calls are final.**

**A driver may ask for an explanation of a call**, but at no time will an official listen to arguments. Arguing an official's call is a **RACE PENALTY** and will be called.

**A five-boat length (15 feet) overlap** is required to change lanes. Cutting off another boat will be called as a lap penalty.

**If a boat is off plane**, the driver must let other boats pass before trying to re-enter the race. This has to be done as not to interfere with the progress of boats on the course. Interference will be called as a lap penalty.

**A driver may stop a heat** at any time, but is not eligible for the restart and will be penalized to make 3 trailer starts for the next 3 heats entered.

#### **Withdrawing a boat for an event:**

When a driver makes the decision to withdraw his boat from an event that decision is final and the boat will not be allowed to compete in any more heats for that day.

#### **Driver Sanction rule:**

Drivers will be allowed to compete until such time that they have been officially penalized for causing 3 accidents during a floating span of 5 races during the season. Once that limit is reached, the offending driver will be suspended from racing for the next scheduled non-exhibition race. This is a driver sanction and does overlap all divisions of racing. (Example: two caused accidents in division 1 plus one in division 2 during the floating 5 race period would incur a suspension.) After the next 4 races, the caused accident(s) from 5 races earlier will have fallen off due to the floating time span.

**Serving a suspension** under this rule eliminates on caused accident from your count for time served. Voluntarily missed race(s) will be included in the floating span of 5 races.

#### **Un-sportsman like conduct:**

Every club member or crew member shall be subject to all rules at club events, from arrival to two hours after the last heat and at all club meetings. Un-sportsman like conducts defined as; Endangered persons, property, or the club reputation. (i.e. swearing, unprofessional behavior or throwing of equipment in public view) Any member has the right and obligation to make club officials aware of these violations.

The PENALTY for each violation shall be any one or combination of the following: a verbal warning, heat disqualification\*, race disqualification\*, or suspension from Classic Thunder Club\*. ( \* = also required to make 3 trailer starts for the next 3 heats entered)

The Club Officials shall have the power to impose a penalty for un-sportsman like conduct at a race or club event and will notify the offending party of the offence as soon as possible.

Records will be kept and used to determine the level of penalty to be issued.

### **Rookies:**

**A rookie** is anyone who is new to organized 1/10<sup>th</sup> scale electric racing or left hand turning.

**To qualify for racing**, a rookie driver must make a legal start within five seconds of the starting gun and drive four clean consecutive laps.

**Rookie drivers** will make trailer starts until such time they have accumulated a total of **1000 points** in heat racing. This requirement is for Division 1 and Division 2 separately.

**Designated Non-rookie drivers** who are new to racing under CT racing rules and boat specifications and those former qualified drivers who have not raced within the preceding two years will be required to make trailer starts until they have accumulated at total of **500 points** in heat racing. This requirement is for Division 1 and Division 2 separately.

**A driver's official rookie season** is counted as the season in which he completes his or her rookie driver trailer start requirements in either division.

**Rookie of the Year** is selected by the Executive Committee and is based on season point totals and sportsmanship.

## ***Special Rules***

**Qualifying for the Gold Cup** will require three timed laps and tech inspections will be done on the 3 fastest qualifiers.

A boat may make three attempts as time allows, but must give priority to unqualified boats or drivers.

Qualifying will last no more than 2 hours.

**Points will be awarded for Gold Cup qualifying**, but these are for season points only and will not count towards getting a boat into the final heat.

**The Gold Cup** will have four flights of preliminary heats instead of three, plus the consolation and final heats.

**If a Club Member shows up to a race event with multiple boats** for one Division of racing, the Club Member's boats will be automatically drawn into separate heats for the first two heat drawings only. Afterwards, the boats will be drawn into heats as normal.

**Leaving garbage** at a race site is a 500 points penalty and or a \$50.00 fine.

**Drivers may clear their propellers** without being disqualified during a race only when pre-determined and announced by the race officials that conditions warrant this exemption.

**To keep the event moving**, the clock will be started for the next heat when the course is clear from the previous heat. Delays can only be called by the heat's head official when conditions warrant. (i.e. ducks, swimmers, boaters, etc.) The clock will not be stopped for a driver who isn't ready to compete in their drawn heat.

**If a boat is showing a considerable amount of radio control problems** out on the course, the driver may be asked to show the club officials that he or she has regained control by performing a radio test of at least 25 feet (with antenna down) between the radio transmitter and the boat. If control is demonstrated, the boat will be allowed to run in its next heat. This test can be requested by any driver or official who feels the boat is out of control. The test must be requested before the start of the 5 minute clock for the boat in question. If a heat is being delayed, only one test will be allowed for any given boat.

**When flag starts are used**, these special rules are to be followed: The boat drivers will pick lanes as determined by the draw or points. When lanes are determined, boats will be called on to prepare for the start and be placed in the water. When all drawn boats are ready to start, the boat in the outside lane (Pace Boat) will proceed out around the course in the normal starting procedure. The pace boat will continue at approximately half throttle around the course so that the other boats may get into their respective lanes. The starting official will help with directing boats into the correct positions. After reaching the exit pin buoy of the final corner, the pace boat has the option to continue at reduced speed or start to pick up the pace. The start of the heat is when the pace boat crosses the start line. Any boat over the starting line before the pace boat has jumped the gun and is given a one lap penalty.

## ***Club Courtesy Rules***

Drivers will return frequency pins to the board before leaving the race site.

Race winners of Division 1 will pick up the buoys (cut off and discard the string and place buoys and weights in the bag) or arrange for someone else to do it for them.

There will be no walking in front of a driver at any time if he has a boat on the water.

No boats will test while the course is being set up.