 North American Model Boat Association Official Rule Book – Update	Update #	2008-1
	Date	2/19/08

Enclosed you will find the latest Rule Book updates. To keep your Rule Book current and up to date, please make the page replacements listed below. If you feel that you have missed any updates please call the Executive Secretary to get an additional copy and/or for clarification of current revisions.

Section

Summary of changes

Table Of Contents

Remove pages: v - vi (*dated 2/28/07*)
 Insert pages: v - vi (*dated 2/19/08*)

Reflect updates to sections listed below

18 - Heat Racing

Remove pages: 3 - 4 (*dated 3/15/06*)
 Insert pages: 3 - 4 (*dated 2/19/08*)

Addition of rule passed via proposals sent out in Nov 2007:
 - Proposal #1: Rule J.5

20 - Sport Hydroplane

Remove pages: 1 - 2 (*dated 3/15/06*)
 Insert pages: 1 - 2 (*dated 2/19/08*)

Modification of rules passed via proposals sent out in Nov 2007:
 - Proposal #8: Rule B.4
 - Proposal #9: Rule B.11 and Table 1, and removal of Figure 2

27 - Gas

Remove pages: 1 - 5 (*dated 3/15/06*)
 Insert pages: 1 - 5 (*dated 2/19/08*)

Modification of rules passed via proposals sent out in Nov 2007:
 - Proposal #2: Rule B.1.a.i
 - Proposal #3: Rule B.1.a.ii
 - Proposal #4: Rule B.1.a.iii
 - Proposal #5: Rule B.1.a.iv
 - Proposal #6: Rule B.1.a.vi
 - Proposal #7: Rules B.1.b.i and B.2.b.i

Section Name: TABLE OF CONTENTS	Page #	v
	Revised	2/19/08

21. SCALE UNLIMITED HYDROPLANE	
A. General Rules.....	1
B. Race Format.....	1
C. Hull Specifications.....	2
D. Engine Specifications.....	3
E. Master Hull Roster	3
F. Scale Concours Judging.....	4
22. ENDURO	
A. Endurance	1
B. Rules	1
23. DEEP VEE	
A. General Rules.....	1
B. Race Format.....	1
C. Hull Specifications.....	1
D. Engine Specifications.....	2
24. OFFSHORE	
A. General Rules.....	1
B. Hull Specifications.....	1
C. Engine Specifications.....	1
D. Race Format.....	2
E. Race Courses.....	2
F. Concours Judging.....	3
25. TEAM MARATHON	
A. General Rules.....	1
B. Race Format.....	1
C. Hull Specifications.....	1
D. Engine Specifications.....	1
E. Lap Counting	2
F. Equipment Repair and Parts Replacement.....	2
26. KIDS COMPETITION	
A. Entry Specifications.....	1
B. Qualifying Boats	1
C. Entry Fees	1
D. Race Specifications	1
E. Driver Assistance.....	1
F. Scoring.....	2
G. Awards	2

Section Name: TABLE OF CONTENTS	Page #	vi
	Revised	2/19/08

27. GAS

A. General Rules.....	1
B. Class Specifications	1
1. G Class Rules.....	1
2. Open Class Rules	2
C. Hull Specifications.....	3
1. General.....	3
2. Monoplane	3
3. Outrigger Hydroplane	4
4. Sport Hydroplane	4
5. Catamaran	4
6. Crackerbox	4
7. Classic Crackerbox	5

28. ELECTRIC

A. General Rules.....	1
B. Official Courses	2
1. Oval.....	2
2. M Offshore.....	3
3. Offset Offshore	3
4. Straight-line.....	4
5. Nationals Course Format	4
C. Race Format.....	4
D. Class Specifications	5
1. Power Specifications.....	5
2. Sport Hydro Classes.....	6
a. General Rules.....	6
b. Appearance and Intent	6
c. Hull Specifications.....	7
d. Drive Train.....	8
e. Motor Specifications.....	8
f. Q & S Sport Special Rules.....	8
g. Limited Sport Hydro	9
3. Offshore Classes	10
a. Offshore	10
b. Limited Spec Offshore (LSO).....	13
4. Specialty Classes.....	15
a. 1/10 th Scale Crackerbox	15
b. P OPC Tunnel	16
c. ECO.....	16
d. Fast Electric 1/8 Scale Unlimited Hydroplane.....	18

Section Name: HEAT RACING	Section #	18
	Page #	3
	Revised	2/19/08

G. THE RACE

1. Laps are counted with the first crossing of the start line counted as zero and with each consecutive crossing of this line counted as an additional lap until the required number of consecutive laps are completed. This constitutes the finish of the race. The first boat to legitimately complete the final lap is declared the winner.
2. In the event that no boat finishes the required number of laps, the heat will be considered complete and will not be re-run. All boats that have legally started the race will get 25 points, a DNF.
3. Following an official start, the course will be run clockwise (right-hand turns) for the required number of laps to designate a heat. In order to be counted as legitimate, a clean lap must be run without penalty. Laps may be counted legitimate after penalty has been assessed and cleared.
4. The Course Time will not be considered a "right" to remain on the course. The contest officials may order a boat(s) off the course any time after completion of the race by the winning boat. Boats travelling at reduced speed, but obviously capable of finishing the required laps, will be awarded points according to their position at the time they are ordered off the course. If, in the judgement of the contest official, boats remaining on the course are incapable of finishing the race, they will be ordered off the course and scored "Did Not Finish."

H. RE-STARTS AND RE-RUNS

1. Since each boat must cope equally with the same probabilities for all circumstances (course obstacles, radio interference, shoring or collisions etc.) in any given heat, no re-runs or re-starts will be allowed, unless the safety of the drivers, contestants, or spectators are in jeopardy.

I. HEAT DELAYS

1. It will be the policy of the contest officials to maintain a sympathetic and helpful attitude toward contestants and their problems in the conduct of a race, and will do their utmost to help drivers with their problems. The contest official should be notified immediately of any major equipment problems discovered by the contestant before reaching the pits. Re-scheduling may be done if, in the discretion of the contest official, it is advisable and fair to all other contestants.
2. Delay or cancellation of Pit Time will not be allowed under any circumstances other than course problems and will be called by the proper contest official.


Section Name: HEAT RACING	Section #	18
	Page #	4
	Revised	2/19/08

J. POINTS AND AWARDS

1. Boats will score and accumulate points in order of their finish positions according to the following table:

1 st Place	-	400 points	6 th Place	-	96 points
2 nd Place	-	300 points	7 th Place	-	72 points
3 rd Place	-	225 points	8 th Place	-	54 points
4 th Place	-	169 points	Did Not Finish (DNF)	-	25 points
5 th Place	-	127 points	Did Not Start (DNS)	-	0 points

2. At the discretion of the individual district, contestants will carry over points toward the year end champion either as determined by their overall class finishing position (for example, the first place finisher for the day carries over 400 point for the year end totals) or by the total points earned in the class for that day.
3. Points will be awarded in order of finish and the entries then placed in order of total accumulated points for the ultimate class and race results.
4. In case of point ties, the boat with the fastest heat time will take precedence.
5. A boat that fails to complete the heat due to the actions of another boat, that results in the disqualification of the offending boat, will receive 4th place points (169 points). This rule will be in effect from the beginning of Pit time until the end of Course time (Race Time). This does not affect the place of finish or points awarded to other boats finishing the heat.

 North American Model Boat Association Official Rule Book	Section Name	SPORT HYDROPLANE
	Section #	20
	Page #	1 of 4
	Revised	2/19/08

A. GENERAL RULES

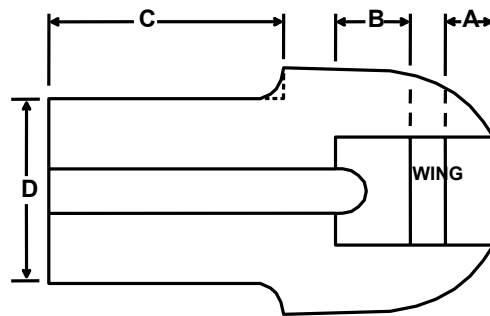
1. Sport Hydroplane racing rules are intended as a supplement to the general racing rules of NAMBA. In the case of a conflict, the Sport Hydroplane racing rules will prevail.
2. Boats will be checked for appearance prior to racing or at any time during the event.
3. Any boat not passing the technical inspection will be disqualified and forfeit the entry fee for that race.
4. A driver of scale like appearance must be used and must be of shoulder height except where a boat has an enclosed cockpit design. In this case, a visible driver will not be needed as long as a simulation of a windshield is part of the paint scheme.

B. BOAT SPECIFICATIONS

1. The boat may be purchased ready built, modified from an existing hull, or scratch built from any suitable material generally used in model boat construction.
2. The deck, cockpit, tail, or fin configuration may be changed to keep boats interesting.
3. Hulls must be of Unlimited and/or Limited design, with all riding surfaces (drive train and prop not included) in front 50% of hull length.
4. The boat must be attractively painted in the spirit of Limited or Unlimited inboard hydroplane racing. Each boat must have a sponsor's name or logo affixed to the hull. The sponsor may be of the builder's choice: a hobby shop, gas station, local business, fictitious sponsor, etc. The boat must have the driver's NAMBA number on it preceded by the letter "U, UL, GP, J" or any other limited or unlimited inboard hydroplane racing designator past or present used by a major full sized sanctioning body such as but not limited to the APBA. The number can be on the hull or tail. In cases where the boater uses the real Unlimited Hydroplane's "U" number, the driver's NAMBA number must appear somewhere on the visible portion of the boat in numbers at least 1/4" in height.
5. There will be no exposed tuned pipes allowed. Tuned pipes will be covered by a deck, a cowl, or an exhaust shroud. That portion of a tuned pipe which is confined to the engine compartment will be exempt.
6. Engine compartment covers and fake engines are not mandatory. Driver's cockpit, cowls, and tail fin sections are mandatory.
7. No out drive assemblies will be allowed.

Section Name: SPORT HYDROPLANE	Section #	20
	Page #	2
	Revised	2/19/08

8. The propeller drive dog may be one drive dog length behind the transom of the boat.
9. No twin rudders are allowed.
10. No twin propellers will be allowed, unless otherwise specified in specific class rules.
11. No boat will have an after plane greater than 60% of the total length of the hull.
Length "C" will be measured from the transom to the point where the sponson is attached to the hull (Figure 1).
12. In determining width "D", the rear sponson width will not be included in the minimum measurement (Figure 1). The minimum tub widths will be as shown in Table 1.
13. On pickle fork hulls length A plus B (Figure 1) must not exceed 25% of total hull length, unless otherwise specified in specific class rules.




(Figure 1)

(Table 1)

Class	Tub Width (D)
Sport 21	4"
Sport 40-I, II	5 1/2"
Sport 60	7"
Sport X	7 1/2"

C. CLASS SPECIFICATIONS

1. Sport 21 Hydroplane
 - a. The class will be named Sport 21.
 - b. Minimum hull length will be 27".

 North American Model Boat Association Official Rule Book	Section Name	GAS
	Section #	27
	Page #	1 of 5
	Revised	2/19/08

A. GENERAL RULES

1. Gas racing rules are intended as a supplement to the general racing rules of NAMBA. In the case of a conflict, the Gas racing rules will prevail.

B. CLASS SPECIFICATIONS

1. G Class Rules

a. General Engine Specifications

- i) Engines in this class shall be highly mass-produced as evidenced by the process used to manufacture the major components. The cylinders and crankcases shall be die-castings, with cylinder and head as a one-piece unit. Examples of such engines are Zenoah, Chung Yang, Kawasaki, Homelite, and U.S. Engines.
- ii) Secondary parts such as water jackets, nose cones, drive components, shim plates, intake manifolds, carburetors, headers, pipes, etc. do not come under the “highly mass produced” rule. Major components such as cranks, rods, pistons, cases, ignition systems, cylinders, and cylinder heads do fall under the rule and must be parts of the original motor manufacturer. Interchanging of major parts from one engine series to another is legal as long as the parts used were available on another engine from the same manufacturer
- iii) Modifications are allowed to major and minor components. However, major components may only be modified by removing material. Adding material or parts to modify an engine's major components will be illegal. The only exception to this rule is that a cylinder may be modified to accept (add-on) a water jacket.
- iv) Induction systems must be piston-ported. Modifications incorporating induction systems other than piston-ported systems are illegal. Engines must be naturally aspirated. Tuned exhaust and intake systems are the only allowed method of altering cylinder pressures.
- v) Engines in this class must employ spark-induced combustion. Glow plug or compression-induced combustion is illegal.
- vi) Recoil starters must be included on the original engine and must be retained on engines in this class.

Section Name: GAS	Section #	27
	Page #	2
	Revised	2/19/08

vii) Displacement is the swept volume of the engine, which is the cross sectional area of the cylinder multiplied by the stroke of the engine and two displacement ranges will be offered within this class:

(a) G-1 will include engines from 15 to 25.99 cubic centimeters.

(b) G-2 will include engines from 26 to 35.99 cubic centimeters.

b. Fuel Specifications

i) Gasoline having an octane rating no higher than 100 must be used in this class. Gasoline is a mixture of hydrocarbons with no nitrogen bearing compounds. Ethers or alcohols may be added commercially as oxygenating agents. It can be mixed with oil in any proportion for lubrication, but no other additives are allowed that were not in the fuel as originally manufactured.

ii) To enforce this rule, a protest may be made to the contest director any time during the contest. Protests must be accompanied by a \$10.00 protest fee that will be awarded to the sponsoring club. The offending racer will be made to use the protesting racer's fuel for the duration of the contest. If the fuel is unacceptable to the offending racer, fuel from a neutral party must then be used by both the offending racer and the protesting racer. In this situation, the neutral party would be awarded the protest fee in payment for the fuel.

2. OPEN CLASS RULES

a. General Engine Specifications

i) Engines running in this class will not be required to fall under the "industrial" rule. Displacement is the swept volume of the engine, which is the cross sectional area of the cylinder multiplied by the stroke of the engine and two displacement ranges will be offered within this class:

(a) GX-1 will include engines from 15 to 25.99 cubic centimeters.

(b) GX-2 will include engines from 26 to 35.99 cubic centimeters.

ii) Engines in this class must employ spark-induced combustion. Glow plug or compression-induced combustion is illegal.

iii) Induction systems may include piston port induction, reed valve induction, rotor-valve induction and drum valve induction.

Section Name: GAS	Section #	27
	Page #	3
	Revised	2/19/08

b. Fuel Specifications

- i) Gasoline having an octane rating no higher than 117 must be used in this class. Gasoline is a mixture of hydrocarbons with no nitrogen bearing compounds. Ethers or alcohols may be added commercially as oxygenating agents. It can be mixed with oil in any proportion for lubrication, but no other additives are allowed that were not in the fuel as originally manufactured
- ii) To enforce this rule, a protest may be made to the contest director any time during the contest. Protests must be accompanied by a \$10.00 protest fee that will be awarded to the sponsoring club. At this point the offending racer will be made to use the protesting racer's fuel for the duration of the contest. If the fuel is unacceptable to the offending racer, fuel from a neutral party must then be used by both the offending racer and the protesting racer. In this situation, the neutral party would be awarded the protest fee in payment for the fuel.

C. HULL SPECIFICATIONS

1. General

- a. All hulls will be limited to a maximum length of 60" and a maximum width of 30".
- b. Primary propulsion must be by a propeller making contact with the water. No air drive or jet drive propulsion is permitted.

2. Monoplane

- a. Mono hulls must have a single riding surface at planing speeds. This planing surface may be flat or a V configuration.
- b. No lateral side to side breaks are permitted.
- c. Lap strakes may be used. If used, they must be parallel to the keel for a minimum of 60 percent of the hull length, measuring from the transom forward. The strakes may merge to the keel after the 60 percent minimum has been exceeded.
- d. Lap strakes on hulls 46" long and under and with a beam width of 15" and under may have a maximum lap strake width of $\frac{3}{4}$ inch and depth of $\frac{1}{4}$ inch.
- e. Lap strakes on hulls over 46" long and with a beam width over 15" may have a maximum lap strake width of $\frac{3}{4}$ inch and a depth of $\frac{1}{2}$ inch.

Section Name: GAS	Section #	27
	Page #	4
	Revised	2/19/08

- f. The depth of the lap strakes is measured from the bottom (primary running surface) to the lowest point on the lap strake.

3. Outrigger Hydroplane

- a. Outriggers may have more than two planing surfaces.
- b. General design will consist of two forward sponsons connected to the tub by booms.
- c. This class is an open design class.

4. Sport Hydroplane

- a. Sport hydroplanes may have more than two riding surfaces touching the water at planing speeds.
- b. This class will include both three-point hydros and canards.
- c. All sport hydros must resemble full scale racing boats and may be of current or historical design.
- d. The sponsons may have pads or breaks that contact the water at planing speeds.

5. Catamaran

- a. Catamarans have two sponsons that normally run the full length of the hull.
- b. Sponsons are separated and connected together by a tunnel.
- c. Sponsons may have lateral breaks.

6. Crackerbox

- a. All boats will be models of full sized crackerboxes.
- b. The letter "P" must precede or follow the NAMBA number on each side of the hull.
- c. The minimum length will be 43.5 inches and maximum length will be 49 inches.
- d. Minimum beam width will be 16.5 inches.
- e. The bottom must be generally flat with a maximum of a three-degree V at the transom. There may not be any pads or lap strakes.
- f. The deck and hatch must resemble that of a full sized crackerbox.

Section Name: GAS	Section #	27
	Page #	5
	Revised	2/19/08

- g. Two drivers of ¼ scale size and appearance, wearing helmets and life preservers must be used.
- h. A steering wheel, instrument panel, and other detailing is encouraged.
- i. No parts (rudder, prop, plates, etc.) may be more than four inches behind the transom.
- j. The exhaust system must be enclosed by the hull. No part of the exhaust system may extend beyond the transom with the exception of a small pipe muffler or transom exhaust flange.
- k. No servo adjusted trim tabs are permitted.

7. Classic Crackerbox

- a. All general Crackerbox rules apply with the following exceptions:
- b. The hull must be made completely of wood. It is permissible to cover the hull with fiberglass and resin. The minimum running weight will be 15 pounds.
- c. Classic Crackerboxes may run in the general Crackerbox class but not on the same day.