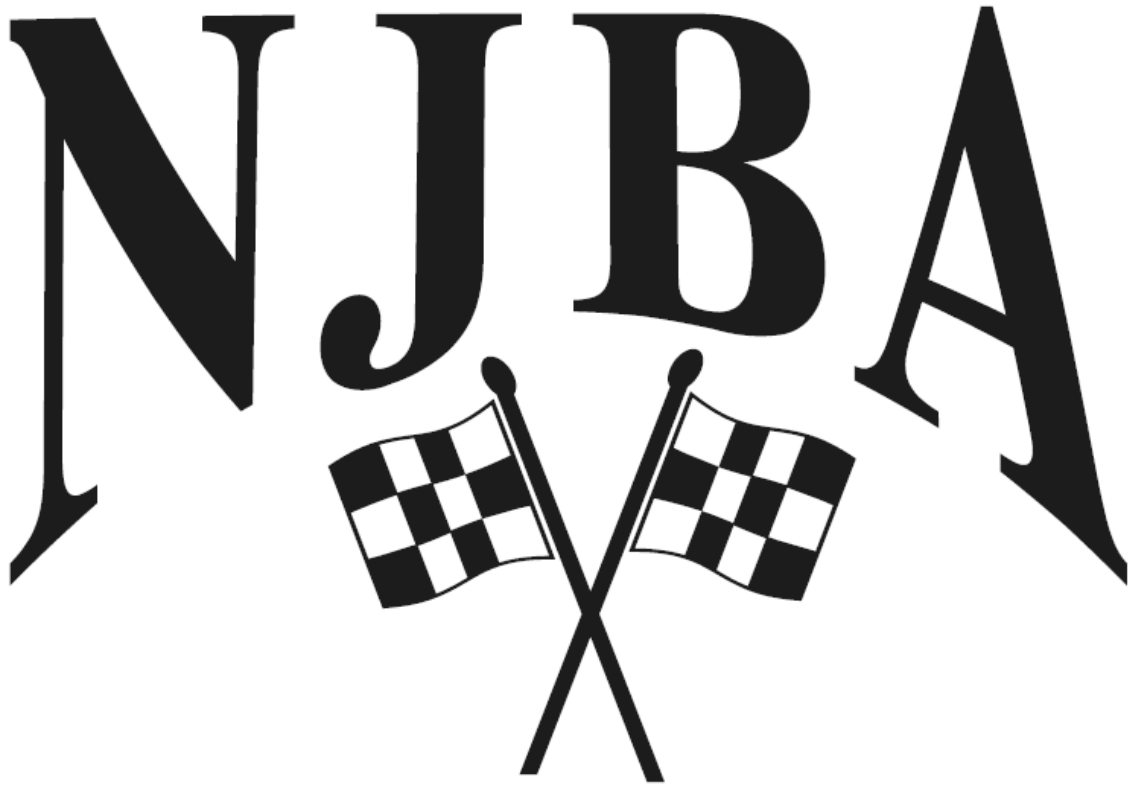


2010

NATIONAL JET BOAT ASSOCIATION

www.NJBARacing.net



RULEBOOK

DISCLAIMER

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events.

These rules shall govern the conditions of all events, and by participating in these events, all participants are deemed to have complied with these rules.

NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND/OR 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 a participant, spectator or official.

The Race Director shall be empowered to permit minor deviations from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements.

NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF THE SPECIFICATIONS.

Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

NJBA

***NOTICE:** All boats and drivers competing in the LUCAS OIL DRAG BOAT RACING SERIES (LODBRS) must abide by their rules. Go to www.lucasoildragboats.com for more information.

NATIONAL JET BOAT ASSOCIATION

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NATIONAL JET BOAT ASSOCIATION
2010 Racing Rules

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CLASSIFICATION OF BOATS

NJBA recognizes the following classes of jet and propeller driven race boats:

<u>CLASS</u>	<u>DESIGNATION</u>
Ski Jet	SJ
Modified Jet.....	MJ
Comp Jet.....	CJ
Pro Gas Jet.....	PGJ
Unblown Fuel Jet	UBFJ
Blown Gas Jet.....	BGJ
Blown Fuel Jet	BFJ
Ski Flat.....	SF
Comp Flat	CF
Pro Gas Flat.....	PGF
Pro Unlimited Flat	PUF
Blown Gas Flat.....	BGF
Top Alcohol Flat.....	TAF
Ski Hydro	SH
Comp Hydro.....	CH
Pro Gas Hydro	PGH
Blown Gas Hydro	BGH
Pro Modified	PM
Top Alcohol Hydro	TAH
Top Fuel Hydro	TFH

CLASS REQUIREMENTS

SKI JET - SJ

Ski Jets are intended to be jet boats having typical water skiing equipment and appearance. Internal engine modifications are permitted to enhance competition and reliability.

General

1. Seating must accommodate a minimum of two (2) adults. Seats must be fully upholstered, and at minimum must consist of a full width bench seat and back, or two (2) equal bucket seats.
2. Steering wheel must be a minimum of 8" off hull center line.
3. Boats may have any type of nozzle with a functional neutral mechanism that is operational from the driver's seat.
4. Adjustable cavitation plates are permitted.
5. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Any bore and stroke combination is allowed up to a maximum of 460 cubic inches, with a clean-up hone of a maximum of .005 inches.
2. No aluminum blocks allowed.
3. Any carburetor configuration up to a maximum of 1500 C.F.M. Absolutely no modifications to the venturi area are permitted on any carburetor from air cleaner flange to base plate, i.e., any factory casting flash and cadmium plating. Visual inspection by the Technical Committee will be allowed at their discretion.

4. The only legal carburetors for this class are Holley part numbers O-4779C, O-4779S, O-6109, O-6709, O-8156, O-9379, and O-80186. The Tech Committee must approve all other carburetors.
5. Ski Jets may run any type of exhaust.
6. Intake manifold must be cast production or modified production only. No homemade or non-production manifolds allowed.
7. Pro Stock style cylinder heads are prohibited. Intake port spacing must remain in stock OEM location as manufactured for production vehicles.
8. 2 speed transmissions are prohibited.

MODIFIED JET - MJ

Modified Jets are intended to be jet boats used specifically for racing, and limited only to maintain a similarity in racing equipment.

General

1. Any modification to boat, engine or jet, not specifically prohibited, is permitted.
2. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Any bore and stroke combination is allowed up to a maximum of 482 cubic inches.
2. Engine must be normally aspirated.
3. Pro Stock style cylinder heads are prohibited. Intake port spacing must remain in stock OEM location as manufactured for production vehicles.

COMP JET - CJ

Comp Jets are intended to be jet boats used specifically for racing, and limited only to maintain a similarity in racing equipment.

General

1. Any modification to boat, engine or jet, not specifically prohibited, is permitted.
2. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Maximum engine displacement is 470 cubic inches.
2. Engine must be normally aspirated.

PRO GAS JET - PGJ

Pro Gas Jets are intended to be jet boats used specifically for racing and limited only to maintain a similarity in racing equipment.

General

1. Any modification to boat, engine or jet, not specifically prohibited, is permitted.
2. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Maximum engine displacement is 515 cubic inches.
2. Engine must be normally aspirated.

UNBLOWN FUEL JET - UBFJ

Unblown Fuel Jets are intended to be jet boats used specifically for racing, and limited only to maintain a similarity in racing equipment.

General

1. Gasoline, methanol, and nitromethane are permitted.
2. Nitrous oxide is permitted.

Engine

1. Maximum cubic is unlimited.

BLOWN GAS JET - BGJ

Blown Gas Jets are intended to be jet boats used specifically for racing, but having highly unusual, expensive or experimental equipment.

General

1. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Blowers or turbo-chargers are mandatory.
2. Maximum engine displacement is 572 cubic inches.
3. Water injection is allowed on blown gas engines providing a sufficient amount of liquid remains in the tank, which will be used for testing purposes at the end of each run.

BLOWN FUEL JET - BFJ

Blown Fuel Jets are intended to be jet boats used specifically for racing, but having highly unusual, expensive or experimental equipment.

General

1. Any type fuel is permitted, other than gasoline.
2. A maximum of 50% nitromethane allowed.

Engine

1. Blowers or turbo-chargers are mandatory.
2. Maximum engine displacement is 565 cubic inches.
3. Blower belts must be Kevlar and 14mm in size.

Pressure Relief Valve Requirements

1. All Blown Fuel Jets must have a pressure relief valve attached to the intake side of the pump bowl. A pressure gage at the intake side of the impeller must be installed within 2" of the packing nut with a check ball or telltale type unit attached (0-200 lbs.).
2. A manual override button on the steering wheel is required.
3. The valve must open in an automatic fashion in case of engine failure or some other type of uncontrolled emergency.
4. The valve will be inspected at the in-ramp prior to each run.
5. Once valve is opened, it must remain open until the boat is on the trailer.
6. Piston size:
 - a. Minimum 4" diameter.
 - b. 13 sq. inches minimum unrestricted exhaust opening.

SKI FLAT - SF

Ski Flats are intended to be prop driven flat bottom boats having typical water skiing equipment and appearance. Internal engine modifications are permitted to enhance competition and reliability.

General

1. Seating must accommodate a minimum of two (2) adults. Seats must be fully upholstered, and at minimum, consist of a full width bench seat and back, or two (2) equal bucket seats.
2. Steering wheel must be a minimum of 8" inches off hull center line.
3. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Any bore and stroke combination is allowed up to a maximum of 460 cubic inches, with a clean-up hone of a maximum of .005 inches.
2. No aluminum blocks allowed.
3. Any carburetor configuration up to a maximum of 1500 C.F.M. Absolutely no modifications to the venturi area are permitted on any carburetor from air cleaner flange to base plate, i.e., any factory casting flash and cadmium plating. Visual inspection by the Technical Committee will be allowed at their discretion.
4. The only legal carburetors for this class are Holley part numbers O-4779C, O-4779S, O-6109, O-6709, O-8156, O-9379, and O-80186. The Tech Committee must approve all other carburetors.
5. Ski Flats may run any type of exhaust.
6. Intake manifold must be cast production or modified production only. No homemade or non-production manifolds allowed.
7. Pro Stock style cylinder heads are prohibited. Intake port spacing must remain in stock OEM location as manufactured for production vehicles.
8. 2 speed transmissions are prohibited.

COMP FLAT - CF

Comp Flats are prop driven flat bottoms used specifically for racing.

General

1. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Displacement may not exceed 470 C.I.D.
2. Engine must be normally aspirated.

PRO GAS FLAT - PGF

Pro Gas Flats are prop driven flat bottoms used specifically for racing.

General

1. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Displacement maximum 515 C.I.D.
2. Engine must be normally aspirated.

PRO UNLIMITED FLAT – PUF 7.70

Pro Unlimited Flats are prop driven flat bottoms used specifically for racing.

General

1. This class maximum allowed ET is 7.700 seconds.
2. Qualifying runs quicker than 7.700 will not be counted.
3. Boats running quicker than 7.700 in competition will be disqualified.

4. In the event that both boats run quicker than 7.700 in competition, the boat running the least amount under 7.700 will be declared the winner.
5. Fuel is unrestricted. The only exception is that Blown Fuel Flats are not legal for this class.

Engine

1. Displacement is unlimited.
2. Motors may be naturally aspirated, blown, or turbo-charged.

BLOWN GAS FLAT - BGF

Blown Gas Flats are intended to be race boats used specifically for racing, but having highly unusual, expensive or experimental equipment.

General

1. All boats shall have installed a device making possible the engagement and disengagement "at will" of the propulsion device while the engine is running.
2. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Maximum engine displacement is 572 cubic inches.
2. Water injection is allowed on blown gas engines providing a sufficient amount of liquid remains in the tank, which will be used for testing purposes at the end of each run.
3. Blowers or turbo-chargers are mandatory.

TOP ALCOHOL FLAT - TAF

General

1. **Fuel system** – Mechanized fuel system allowed. The injection system cannot be controlled by exhaust gasses.
2. **Fuel** – Blown methanol. Unblown nitromethane, no percentage limit.
3. **Clutch, Flywheel & Bellhousing** – All boats utilizing a clutch must have a steel hydroformed bellhousing. All boats must have a 360-degree flywheel cover.
4. **Neutral Device** – A device to allow engagement and disengagement "at will" of the propulsion device while the engine is running.
5. **Prop shaft** – The minimum prop shaft diameter through the back of the strut is 1-1/8".

Engine

1. Any internal combustion automotive type engine permitted. No dual engine set-ups allowed. Maximum 572 cubic inch and 4 valves per cylinder.
2. **Supercharger** – Required – roots-type maximum size 14-71, 19" case length, 11-1/4" case width, maximum rotor cavity diameter is 5.840". Helix is restricted to maximum rotor spiral of 6.5 degrees per inch of length. Maximum overdrive 70%.
3. Screw-type superchargers are not allowed.

SKI HYDRO - SH

Ski Hydros are intended to be prop driven flat bottom boats having typical water skiing equipment and appearance. Internal engine modifications are permitted to enhance competition and reliability.

General

1. Seating must accommodate a minimum of two (2) adults. Seats must be fully upholstered, and at minimum, consist of a full width bench seat and back, or two (2) equal bucket seats.

2. Steering wheel must be a minimum of 8" off hull center line.
3. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Any bore and stroke combination is allowed up to a maximum of 460 cubic inches, with a clean-up hone of a maximum of .005 inches.
2. No aluminum blocks allowed.
3. Any carburetor configuration up to a maximum of 1500 C.F.M.
4. Absolutely no modifications to the venturi area are permitted on any carburetor from air cleaner flange to base plate, i.e., any factory casting flash and cadmium plating. Visual inspection by the Technical Committee will be allowed at their discretion.
5. The only legal carburetors for this class are Holley part numbers O-4779C, O-4779S, O-6109, O-6709, O-8156, O-9379, and O-80186. The Tech Committee must approve all other carburetors.
6. Ski Hydros may run any type of exhaust.
7. Intake manifold must be cast production or modified production only. No homemade or non-production manifolds allowed.
8. Pro Stock style cylinder heads are prohibited. Intake port spacing must remain in stock OEM location as manufactured for production vehicles.
9. 2 speed transmissions are prohibited.

COMP HYDRO - CH

Comp Hydros are intended to be race boats used specifically for racing and limited only to maintain a similarity in racing equipment.

General

1. Any modification to boat or engine not specifically prohibited is permitted.
2. The minimum prop shaft diameter through the back of the strut shall be 1-1/8".
3. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Maximum engine displacement is 470 cubic inches.
2. Engine must be normally aspirated.

PRO GAS HYDRO - PGH

Pro Gas Hydros are intended to be race boats used specifically for racing and limited only to maintain a similarity in racing equipment.

General

1. Any modification to boat or engine not specifically prohibited is permitted.
2. The minimum prop shaft diameter through the back of the strut shall be 1-1/8".
3. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Displacement maximum 515 C.I.D.
2. Engine must be naturally aspirated.

BLOWN GAS HYDRO - BGH

Blown Gas Hydros are intended to be race boats used specifically for racing and limited only to maintain a similarity in racing equipment.

General

1. Any modification to boat or engine not specifically prohibited is permitted.
2. The minimum prop shaft diameter through the back of the strut shall be 1-1/8".

3. Fuel is restricted to racing gasoline. See [General Racing Rules](#).

Engine

1. Maximum engine displacement is 572 cubic inches.
2. Blowers or turbo-chargers are mandatory.

PRO MODIFIED – PM 7.00

General

1. **Fuel System** – Mechanized fuel systems allowed. The injection system cannot be controlled by exhaust gasses.
2. **Fuel** – Gasoline, methanol and/or nitrous oxide allowed. Propylene oxide will not be allowed.
3. **Clutch, Flywheel and Bellhousing** – All boats must have a 360-degree flywheel cover.
4. **Neutral Device** – A device to allow engagement and disengagement “at will” of the propulsion device while the engine is running.
5. **Prop Shaft** – 1-1/8” shaft diameter on front portion of prop shaft may not be reduced to less than 1-1/8”. If a two-piece prop shaft is utilized, the coupler must meet the following criteria:
 - a. Thru-bolt coupler bolt must be indexed into prop shaft. The bolt must be the same size as the hole in the coupler.
 - b. Split coupler with set screw retainment, prop shaft must be dimpled with drill bit that will fit into set screw hole in coupler the full depth of the drill point. Set screw must be secured in the hole.
 - c. No barrel drilling of prop shaft allowed.
6. **Rudder** – All Hydro rudders must extend 1-1/2” past the lowest point of the propeller. Chrome rudders will not be allowed.
7. **Parachute** – Mandatory for hydros only.
8. **Safety Capsule** - Mandatory.

Engine

1. Any internal combustion automotive-type engine permitted. No dual engine set-ups allowed.

TOP ALCOHOL HYDRO - TAH

General

1. **Fuel System** – Mechanized fuel system allowed. The injection system cannot be controlled by exhaust gasses.
2. **Fuel** – Blown methanol. Unblown nitromethane, no percentage limit.
3. **Clutch, Flywheel and Bellhousing** – All boats utilizing a clutch must have a steel hydroformed bellhousing. All boats must have a 360-degree flywheel cover.
4. **Neutral Device** – A device to allow engagement and disengagement “at will” of the propulsion device while the engine is running.
5. **Prop Shaft** – The minimum prop shaft diameter through the back of the strut is 1-1/8”.
6. **Rudder** – Minimum 1/2” thickness of the clamshell.

Engine

1. Any internal combustion automotive type engine permitted. No dual engine set-ups allowed. Maximum 572 cubic inch and 4 valves per cylinder.

2. **Supercharger** – Required – roots-type maximum size 14-71, 19” case length, 11-1/4” case width, maximum rotor cavity diameter is 5.840”. Helix is restricted to maximum rotor spiral of 6.5 degrees per inch of length. Maximum overdrive 70%.
3. Screw-type superchargers are allowed.

TOP FUEL HYDRO - TFH

General

1. **Fuel System** – Mechanized fuel system allowed. The injection system cannot be controlled by exhaust gasses.
2. **Fuel** – A minimum of 50% nitromethane.
3. **Clutch, Flywheel and Bellhousing** – All boats utilizing a clutch must have a steel hydroformed bellhousing. All boats must have a 360-degree flywheel cover.
4. **Neutral Device** – A device to allow engagement and disengagement “at will” of the propulsion device while the engine is running.
5. **Prop Shaft** – The prop shaft diameter through the back of the strut is 1-3/8”. The minimum for dual prop shaft boats is 1-1/4”.
6. **Rudder** – All rudder support brackets must be solid, no lightening holes will be allowed. Brackets at each side of clamshell must be a minimum of 5/8” thick. Any lightening holes in any rudder support brackets will not be allowed.
7. **Parachute** - Mandatory.
8. **Safety Capsule** - Mandatory.

Engine

1. Any internal combustion automotive type engine permitted. No dual engine set-ups allowed. Maximum 565 cubic inch and 4 valves per cylinder.
2. **Supercharger** – Required – roots-type maximum size 14-71, 19” case length, 11-1/4” case width, maximum rotor cavity diameter is 5.840”. Helix is restricted to maximum rotor spiral of 6.5 degrees per inch of length. Manifold burst panels meeting SFI Spec 23.1, plus restraint system meeting SFI Spec 14.2 mandatory. Screw-type superchargers prohibited.

ESTABLISHMENT OR DELETION OF CLASSES

1. At the General Rules Meeting, the membership may establish or delete a racing class. The same procedure as for rule changes will apply. In either event, a one (1) year probationary period will be in effect.
2. Special events may be added at each race at the discretion of the Race Committee.

PROTESTS

1. Carburetor, equipment or displacement protests, where a tear down is required, may be made only if a written protest and \$225 in cash is deposited with the Race Chairman within thirty (30) minutes after the completion of the race involved. If boat is found illegal, full amount paid by the protester will be refunded. An illegal boat will be fined \$500 by NJBA. If boat is found legal, \$200 will be awarded to the boat owner.
2. Technical Committee may, at their discretion, tear down any engine, and if found to be legal, the owner will be reimbursed \$200 by the NJBA. If illegal, action will be taken by the Technical Committee.
3. There will be a fuel tester at each race.
4. Technical Committee may, at their discretion, remove cover, check fuel, and P&G, i.e. air cleaners, valve covers, etc., and perform other visual inspections.
5. A \$50 fee will be charged for protests involving P&G only.

6. A \$25 fee for all protests involving a tear down will go to the NJBA.
7. Equipment or fuel violations may be cause for disqualification from that event and next event, and any records set by that boat for that year, may be disallowed.
8. The Protest Chairman must make a protest form available to any registered participant. All protests must be filed at the race site on race day.

SAFETY RULES

The following General Safety Rules will be enforced at all NJBA racing events, and are recommended for NJBA members at all other events.

1. NJBA Officials will enforce all safety rules. All safety rules must be observed at all times.
2. No driver may operate his boat in such a manner as to force another boat into an unsafe situation.
3. At least two (2) qualified judges must be on the course during every race to observe driver conduct, especially that of novices.

CONDUCT OF OWNER AND CREW

1. **The boat owner is directly responsible for the conduct and actions of any and all members of his/her crew.** Any violations of the rules and regulations by any owner or member of a crew may result in disqualification, or suspension of the boat, driver, and owner.
2. **Any verbal abuse and/or physical abuse, threats, or harassment towards an NJBA official shall result in immediate disqualification** from the event and possible further suspension from one or more race events, depending upon the severity of the offense.
3. No smoking in pit area or on race course.
4. No alcoholic beverages shall be consumed by any racer or pit crew before or during a race, or until thirty (30) minutes after the last race of the day.
5. At no time may motor driven cycles, i.e., motorcycles, ATC's, etc., be ridden in the pit area without permission of the Race Officials.
6. The owner(s) is responsible for the removal and proper disposal of all trash and fluids (i.e. oil, cleaning fluids, etc.) from his/her pit area before leaving the race course. Failure to do so will result in a fine, to be paid to NJBA prior to competing in the next event. Additionally, the boat owner will be responsible for the full cost of clean-up and any fine levied against NJBA due to spillage, dumping, improper disposal, etc., of any oil, solvents, fuel, or any other toxic materials.

DRIVER REQUIREMENTS AND EQUIPMENT

1. Minimum age for boat drivers is 18 years.
2. Minimum age for personal watercraft is 16 years, with valid driver's license.
3. All drivers must wear "medi-tags" while racing.
4. All drivers must wear helmets that protect the head, temple, ears and neck. All helmets must be in good condition and be 1980 Snell or newer.
5. All drivers must wear eye protection, such as goggles or face shield. The use of sunglasses does not meet this requirement.
6. All drivers are required to wear helmet restraints. The use of safety collars with the helmet restraint is also recommended.
7. All drivers must wear life jackets having leg straps and spinal protectors at all times while the boat is on the water.
8. The manufacturer must certify all racing vests or jackets every two years.

9. Minimum clothing for drivers will be short sleeve shirts, long pants, and closed toe shoes. Long sleeve shirts are recommended. All boat drivers running anything other than gasoline or nitrous oxide must wear a full flame retardant driving suit, head sock, gloves, and shoes.
10. All drivers are required to wear ballistic pants.
11. Drivers of open boats may not remove helmets, life jackets or any safety equipment **until boat reaches the out ramp.**

TECH INSPECTION

1. Boat registration will not be completed until the boat has successfully passed a technical inspection for the event and class for which it is entered.
2. All boats must be in safe mechanical condition as determined by NJBA Inspectors. This applies particularly to steering, throttle linkage, U-joints, motor mounts and bolts, seat mounts, wiring and fuel systems.
3. On all motor mounting hardware, a minimum of two (2) threads of the fastener must be exposed past the end of the nut.
4. All boats must have a 360-degree flywheel cover made of production aluminum or the equivalent material.
5. All boats must have a throttle return spring, which will insure an idle condition when the linkage is disconnected or fails. The spring may not be connected to ball joint.
6. All boats must have a "throttle stop" that prevents the throttle cable or carb/injection linkage from going past center.
7. All boats must have a "kill switch" connected to the driver that will shut off the engine in the event the driver is thrown out of his seat. This device shall be mounted or release routed so as to disconnect should drivers posterior move more than 18" in any direction from the drivers seat. Steel clips only on kill switch lanyard. No plastic hooks permitted.
8. All boats with cable steering must have a minimum of two (2) clamps on each cable.
9. No fuel tanks will be part of, or attached to seat.
10. All boats must have a fully charged minimum 5 lb. fire extinguisher in the pits and tow vehicle, with a current certification tag.
11. A device will be required on all boats, which will deflect the holding rope over the highest point of the boat. Minimum specifications 3/4 x .049 tubing mounted at an approximate 45 degree angle and attached at both ends.
12. All boats equipped with a parachute shall have an actuating device located in such a position so to be readily accessible and actuated by the driver without necessitating the release of either hand from the steering wheel (i.e., controlled actuating device on steering wheel, foot release, etc.) a back-up manual release must be within easy reach of the driver. All parachutes will be subject to deployment during inspection.
13. All boats must have a functioning "neutral" that is used every time a boat is started on the holding rope.

LICENSE REQUIREMENTS

1. All first time NJBA drivers must pass a driving test and attend an orientation meeting.
 - a. Drivers may present to the Race Committee a driver's license from other racing associations. The Race Committee will determine if this license meets the criteria of the NJBA.
2. All new and upgrading NJBA drivers will be required to obtain a license under the direction, supervision, and approval of the Race Committee.
3. To be allowed to participate, all drivers must provide proof of passing an FAA type Class 3 physical, a DMV equivalent, or a current IHBA driver's license.
4. All drivers of capsule boats must attend a capsule orientation class held by the NJBA.

JET BOATS

1. All jet driven boats that run 145 MPH or faster must have an NJBA approved safety capsule installed.
2. All jet driven boats that run 100 MPH or faster must have a "pop-off valve" or a ratcheting device.
3. All jet boat intake grates must have bolts drilled all the way through (hull) with a minimum 5/16" bolt and nutted on top. Bolts should be steel, not stainless, and should be fine thread.

PROP BOATS

1. All *flat bottom* boats that run 145 MPH or faster and all *hydro* boats that run 160 MPH or faster must have an NJBA approved safety capsule installed.
2. All prop driven boats in excess of 100 MPH must have a prop release mechanism.
3. Chrome rudders or struts are not allowed on prop driven boats.
4. All hydro rudders must extend at least 1-1/2" below the prop when the prop is in a vertical position.
5. All hydro rudders shall be a minimum of 1/2" thickness at the clam shell.
6. All propeller driven boats are required to utilize a safety collar located just upstream of the shaft seal which will prevent the propeller shaft from moving rearward. In addition, all hydros are required to utilize, underwater, a 2-piece steel split safety collar located directly in front (maximum of 1/2") of the main strut.
7. The minimum prop shaft diameter through the back of the strut shall be 1" unless otherwise stated in the general rules for the class in which the boat would normally compete. All hydros not eligible for a class competing in the 6.50-8.00 brackets shall have a minimum prop shaft diameter of 1-1/8" through the rear of the strut. Shaft diameter on the front portion of the prop shaft may not be reduced to less than 1". If a two-piece prop shaft is utilized, the coupler must meet the following criteria:
 - a. Thru-bolt coupler: Bolt must be indexed into the prop shaft. The bolt must be the same size as the hole in the coupler.
 - b. Split coupler with set screw retainment: Prop shaft must be dimpled with a drill bit that will fit into set screw hole in coupler the full depth of the drill point. Set screw must be secured in the hole.
 - c. No rifle drilling of prop shaft will be allowed.
8. All prop driven boats are required to have a drive line guard. The drive line guard is defined as being fully enclosed from the V-drive to the center of the rear coupler of U-joint of the engine within 2-1/2" of the flywheel adapter and secured in such a manner that it will retain the drive shaft, in the event of failure. No perforations will be allowed in the drive line guard. Material must be 1/4" aluminum or 1/8" steel.

BLOWN BOATS

1. All blown-injected motors are required to have blower restraints. All blown fuel motors are required to utilize an SFI 14-2 approved restraining device. All blown alcohol motors will be required to utilize an SFI 14-1 approved restraining device. All blown motors utilizing a screw type blower are required to utilize an SFI 14.21 approved restraining device regardless of type of fuel used. All screw type blowers are restricted to the amount of overdrive used and must meet SFI spec 34.1 construction standards. For construction standards and overdrive percentages, contact the Tech Department. This restraining device must be in place at all times when the motor is running.
2. All blown, injected, or fuel boats must have a fuel shut off valve controllable from along side or in front of driver. The valve shall be located between the main fuel pump and the injectors.

CAPSULE BOATS

All safety capsules must meet SFI 36.1 specifications. Any safety capsule involved in an accident must be re-certified before entering or running any NJBA event.

1. All brackets and levers shall be so located as not to interfere with driver's movement or entry and exit of the capsule.
2. All cables and hoses shall be of the breakaway type with separation point on the outside of the capsule.
3. All thru hull fittings in capsule (with the exception of steering cables) shall be sealed and made water tight.
4. Roll cage shall have foam padding around head hoop supports, head guard and head hoop.
5. Driver's seat must be fastened to frame of capsule.
6. Transparent portion of canopy must provide clear visibility of driver.
7. Flotation:
 - a. Spray or pour in type foam will not be allowed in capsules.
 - b. If capsule is designed to separate from boat on impact, it shall also be designed to float on the water surface while full of water, as rigged and with driver.
 - c. Flotation must be installed in an irremovable fashion.
8. All capsule boats must be equipped with one of the following: Halon, Co2, dry chemical, or NAF-111 Fire X type fire systems, minimum of 10 lbs. Fire system must have a minimum of two (2) nozzles/outlets directed at each side of motor. A pressure gauge showing state of charge must be visible for inspection. It shall also have an actuating device located in such a position so to be readily accessible and actuated by the driver.
9. All capsule boats must have a minimum of a five (5)-point safety harness attached to capsule frame.
 - a. Push type quick releases will not be allowed.
 - b. A quick release 3" shoulder harness meeting SFI spec 16-1 is mandatory.
 - c. Driver restraint systems must be certified by the manufacturer every two years.
 - d. Driver restraint systems must be clearly labeled and dated by the manufacturer.
 - e. All seat belt and shoulder harness installations must be mutually compatible, originally designed to be used with each other.
 - f. Mounting level on shoulder harness must be mounted level with the shoulders to 4" below shoulder height.
10. All capsule boats must be equipped with a minimum twenty (20) minute air supply prior to each run.
 - a. Air supply bottles must be attached to the capsule frame.
 - b. A pressure gauge must be installed and visible for inspection prior to each run. (Air supply minimum pressure before each run is 2,000 psi).
 - c. A form of quick release shall be incorporated into each air supply system, either at the supply hose or bottle.
 - d. All respiratory orifices shall be incorporated into a pressurized or demand life support air system.
 - e. No scuba type regulators will be allowed.
 - f. Nitrox and mixed gases are prohibited.
11. The bottom of all capsules must be permanently colored from front to back and 2 inches up the backside with "high hide yellow."

12. All capsules must have a lifting eye on top of capsules. Lifting eyes must be bolted to roll cage. Lifting eye must have a 45-degree angle on the front of hoop to deflect the holding rope. All capsules will also have lifting eyes on the right and left sides or back. Eyes are to be one-half (1/2) the distance between the top lifting eye and the deck. The eyes must be attached to the roll cage on the inside of capsule. **Lifting eyes must be clear and open to accept Rescue's lifting hook, without obstruction.**
13. The following boats are required to have NJBA safety capsules installed:
 - a. Jet boats that run 145 MPH or faster.
 - b. Flat bottom boats that run 145 MPH or faster.
 - c. Hydro boats that run 160 MPH or faster.
14. RULES FOR BOATS RUNNING SPEEDS REQUIRING CAPSULES.
 - a. Boats without capsules will be allowed one run per event that meets or exceeds the speed required for that type of boat to have a capsule.
 - b. A boat that makes a second run at the same event that requires that type of boat to have a capsule, will not be allowed to run at that event again. The speed and ET for the second run will not be allowed for purposes of qualifying or eliminations.
 - c. Boats without capsules that make two runs at the same event at a speed requiring that type of boat to have a capsule, must meet with the Race Director before leaving the event.
 - d. Boats without capsules that make two runs at the same event at a speed requiring that type of boat to have a capsule, must have the permission of the Board of Directors to run at future events.

GENERAL RACING RULES

1. NJBA Officials will enforce all racing rules in effect for a particular event.
2. All races will be run by the procedures listed in the race flier for that particular event.
3. Only the driver(s) signed on original entry prior to the close of registration will be eligible to drive the boat. Driver substitutes may be made only in the case of incapacity of the original driver as approved by the Race Committee. Failure to abide by this rule will result in disqualification of boat and number.
4. Drivers are restricted to driving one category boat, one bracket boat, and one super eliminator boat per event.
5. Any driver failing to answer roll call at Driver's Meeting may be disqualified. Only owners and drivers will be allowed at Driver's Meeting.
6. All boat numbers must be legible from three hundred feet and be 10" high with a minimum 2" brush stroke, in contrasting color on both sides of boat.
7. All drivers on holding rope must follow direction of Officials or be disqualified immediately.
8. Any boat entering a lane not assigned to it may be disqualified.
9. A penalty or disqualification against an owner or driver may include the boat number at the discretion of the Judges.
10. All decisions of the Race Committee will be handed down by the Race Director.
11. Participants will be subject to disqualification for entering the Tower during a race.
12. **An owner and/or driver only, may participate in any decision involving his/her boat.**
13. Both boats will be given ample time to fire, as determined by the Race Committee. If only one fires, he/she will be declared the winner after completion of a legal single.

- a. **A legal single only occurs when a boat's competition does not show, or does not cross the starting line beam within 5 seconds of the green light.**
 - b. Any boat in competition that cannot start the engine and cross the start line beam under the power of the engine within 5 seconds of the green light, will be disqualified.
 - c. Lights will be interpreted as follows:
 - (1) Blinking Yellow.....Start Motor
 - (2) Yellow.....Stage
 - (3) Green.....Go
 - (4) Red.....Stop
- NEVER PROCEED ON A RED LIGHT!**

CATEGORY

1. **First or Worse** – The primary objective of each category race is to have one winner and one loser with the Race Director having full responsibility on cases involving dual disqualifications. Should a double rule infraction occur on the same run, the driver committing the major infraction will be eliminated. The other driver with the lesser offense will be reinstated.
2. **Red Light** – A red light on a bye run or legal single run will not eliminate a boat from competition.
3. **Dual Red Lights** – When both boats in competition red light, the boat that red lights the least will be declared the winner.
4. Boats are not required to make a bye run.
5. Where a three (3) boat field does not exist, a step-up is allowed to the next higher class or next higher cubic inch class in which the boat is legal. These boats must also be legal for the class for which they are claiming points.
6. All category class winners may be P&G inspected.

GASOLINE

Gasoline, as defined, is a mixture of hydrocarbons. Gasoline is a good electrical insulator, or dielectric, and its relative effectiveness as an insulator is represented by its dielectric constant. The average D.C. for the hydrocarbons, which comprise gasoline, is 2.025. This is defined as a reading of 0 with the NJBA fuel meter. To compensate for possible temperature differences of gasoline, which cause slight variations of the D.C., the maximum acceptable meter reading is +1, with 0 as the reference reading. A gasoline which has a D.C. greater than 2.3 will cause the meter reading to be outside of this range. The addition of compounds containing nitrogen and/or oxygen may produce a mixture of D.C. greater than 2.3. Most gasolines meet these criteria. It is recommended that unknown gasoline be checked before use in competition.

PAIRING

1. Pairing for the first round eliminations will be based on the ET's of the field. Boats will be matched in a 16-boat field.
2. If there is an uneven field, in the first round, the #1 boat (quickest time) will be awarded the bye.
3. The bye boat need not report to staging for a run if he so chooses. The boat will receive the points for that round.
4. The balance of the race program will be run by the ladder system.
5. At the time of roll call, should a driver not answer or should he declare withdrawal from the program, the seventeenth (17th) qualifying boat shall be inserted in the field, and the entire category re-paired.
6. NJBA category drag classes will consist of a maximum of any 16-boat field. Bracket classes have no limit.

7. In the event that any category class does not receive a full round of qualifying, the boats in that class will be paired by drawing. Anyone missing a round of qualifying due to their own negligence, or mechanical failure will not be considered as causing the class to be incomplete.
 - a. Upon the discretion of the Race Committee, categories in this situation may not be limited to their usual field.
 - b. Qualifying points will not be awarded to the number 1 and 2 qualifiers when boats are paired by a drawing.
8. In the event that all boats entered in bracket classes do not receive a qualifying run, brackets with boats that did not receive a run will be paired by a drawing. Anyone missing a round of qualifying due to their own negligence, or mechanical failure, will not be considered as causing the class to be incomplete.
 - a. Qualifying points will not be awarded to the number 1 and 2 qualifiers when boats are paired by a drawing.
9. After the completion of qualifying, there will be thirty (30) minutes to declare into a bracket other than the one your qualifying ET places you, or on your registration form. There will be no changes made on Race Day.
10. If a qualified boat declares broke or is disqualified on Saturday, the remaining qualified boats will be re-paired.
11. If you are aware that an illegal boat has entered your class, you must inform the Tower and the Tech Chairman before the completion of qualifying so that the boat may be removed from the class before the final pairings. If you do not inform the proper persons as stated, the class will be run as paired.

INCOMPLETE RACE

1. In the event of an incomplete race, the boat with the quickest elapsed time (ET) of the last completed round, and still remaining in the program, will be declared the winner. The runner-up will be the boat with the second quickest ET that is still remaining in the program.
2. If a bye boat situation exists, the bye boat will be ranked on the basis of the ET that established his bye run for that round.
3. The ranking for a bye boat shall be the ET recorded from the previous round.
4. At no time shall the ET of an eliminated boat be used in determining the winner or runner-up.
5. If the first round of a category is not completed, the winner and runner-up will be the boats with the fastest and next fastest ET in qualifying.
6. If any remaining boat in a class does not receive an ET, the winner and runner-up in that class only will be declared by MPH.

RECORDS

1. NJBA will recognize speed and ET records for jet drive or prop drive boats running quarter mile drag races at NJBA events only.
2. A record run must be made on an established quarter mile drag course, and must be timed with electrical timing devices.
3. Any run exceeding the current record may be considered a potential new record leg.
4. All new record legs and back-up runs must be made in the class for which the record is claimed. A back-up run may precede or follow the new record leg and must be made at the same event.
 - a. Boats that have set a new record leg, or have backed up a record, may not leave the out ramp area until a fuel sample has been collected by a member of the Race Committee.

- b. Boats that have set a new record leg, or have backed up a record, may not leave the race course, until the boat has been inspected by the Race Committee.
 - (1) Records will not be approved, and drivers and owners may face disciplinary actions, if record setting boats leave the course before being inspected by the Race Committee.
 - (2) After a record is set and backed up, you may be P&G inspected by tech.
 - c. The clocked time of the back-up run must be within 1% of the new record leg. If the clocked time of the back-up run exceeds the record leg by no more than 1%, the faster time will be considered a potential new record. In the event the back-up run exceeds the record leg by more than 1%, the faster run may be considered a potential record leg, and must be backed up by another run within 1%, time permitting. If this is not accomplished, the original time will stand as being backed up.
5. Any NJBA member claiming a new record must submit written proof to the Records Chairperson supporting his claim at a race site. Claim to include all pertinent data, as well as course run, record speed, date, cubic inch test results, gas check, carburetor size, and including the name and title of the inspecting person. Pending same day P&G.
 6. The new record claim will be considered as recognized by the NJBA when a majority of the Board of Directors votes that the claim meets NJBA requirements.
 7. After any major equipment change in a class, the existing record will be retired.

POINTS

1. The NJBA Board of Directors will annually sanction at least three (3) events to form the "NJBA National Championship Series."
2. Each sanctioned event may have points competition in each of the following categories: SJ, MJ, CJ, PGJ, UBFJ, BGJ, BFJ, SF, CF, PGF, PUF, BGF, TAF, SH, CH, PGH, BGH, PM, TAH, and TFH.
3. Each sanctioned event may have points competition in each of following ET brackets: 7 seconds SPE, 8 seconds PE, 9 seconds TE, 10 seconds ME, 11 seconds SE, and 12 second + RRC.
4. Each sanctioned event may have points competition in the super eliminator bracket.
5. A minimum of five (5) boats must compete in a category class, bracket class, or super eliminator, in order for cash prizes to be awarded.
6. Category classes, bracket classes, and super eliminator classes with four (4) or less boats competing, will be awarded points and event trophies only.
7. Category or bracket boats competing in a class with less than three (3) boats have the option of "stepping up" to the next higher class they are legal for to compete for points, trophies, and cash prizes.
 - a. When there are two boats in the category or bracket, both must agree to step-up.
 - b. When boats step-up, they may claim points in the category or bracket they originally registered in.
 - c. Stepping-up can only be done before qualifying begins on Saturday.
8. Points will be awarded to the boat number and the owner of that number.
9. A member may put his number on any boat owned by him, but only on one (1) boat for any particular event. Ownership and title must be officially documented at the time of registration. Official documentation will be, at a minimum, a notarized Bill of Sale.
10. Points cannot be transferred from one number to another, or from one owner to another.

11. Points may not be transferred between classes and brackets.
12. Boats that are number one qualifier in their class or bracket will receive 10 points.
13. Boats that are number two qualifier in their class or bracket will receive 5 points.
14. Boats that set an ET record will receive 5 points.
15. Boats that set a MPH record will receive 5 points.
16. At sanctioned events, registered annual members only will receive points as follows:
 - a. All boats that qualify for a category class or bracket will receive 100 points.
 - b. All boats that win a round of competition will receive 50 points for each round.
17. In drag races, places will be awarded as follows:

Winner.....	1 st
Runner-up.....	2 nd
Semi-Final.....	3 rd
Quarter-Final.....	4 th
18. The final NJBA event of each racing year will be called the “NJBA National Championship Finals,” and may be a points event.
19. Any dispute over points will be settled by the NJBA Board of Directors.
20. All boats in contention for year-end points must have raced in 51% of all NJBA points races for that year. In order to be in contention for year-end points, you must have competed in 51% of the races in that class.
21. In the event of an incomplete race, points will be awarded for the position you received during the last completed round.

AWARDS

1. Upon completion of the racing year, awards will be made to the boat numbers and owners having accumulated the most points in 51% of the NJBA points events in each of the following categories, brackets, and super eliminator.
 - a. SJ, MJ, CJ, PGJ, UBFJ, BGJ, BFJ, SF, CF, PGF, PUF, BGF, TAF, SH, CH, PGH, BGH, PM, TAH, and TFH.
 - b. 7 seconds SPE, 8 seconds PE, 9 seconds TE, 10 seconds ME, 11 seconds SE, and 12 seconds + RRC.
 - c. Super eliminator.
 - d. Probationary classes do not receive year-end awards.
 - e. For a boat to be eligible for class award, there must be three (3) or more boats with points toward the award.

YEAR-END HIGH POINTS TIE BREAKER

1. In the case where two or more boats in a category, bracket, or super eliminator tie for the year-end high points championship, the following criteria in the order listed will be used to choose one boat as the overall winner.
 - a. Most event wins in the category, bracket, or super eliminator.
 - b. Most event wins in the category, bracket, or super eliminator.
 - c. Most number one (1) qualifying positions in the category or bracket.
 - d. Most records set in the category for the year.

Note: NJBA’s Perpetual Trophy can never be permanently owned by any one individual.

ET BRACKETS

ET bracket classes will be semi-professional classes competing within the NJBA.

Fuel

1. Any type of fuel may be used in bracket classes.
2. Nitrous oxide is allowed in bracket classes.
3. Flat Bottom v-drive boats may not run nitromethane.

Rules

1. **Sandbagging is allowed during bracket qualifying and eliminations.**
 - a. The throttle blades of carburetors or injectors may only be operated by the cable connected to the driver's foot pedal.
 - b. The use of hydraulic, electric, or air devices to operate the throttle blades of carburetors or injectors is prohibited.
2. **First or Worse** – The primary objective of each bracket race is to have one winner and one loser with the Race Director having full responsibility on cases involving dual disqualifications. Should a double infraction occur on the same run, the driver committing the major infraction shall be eliminated. The other driver with the lesser offense shall be reinstated.
3. **Red Light**
 - a. A red light on a bye run or a legal single will not eliminate a boat from competition.
 - b. When both boats in competition red light, the boat that red lights the least will be declared the winner.
4. **Break-out**
 - a. A break-out on a bye run or legal single will not eliminate a boat from competition
 - b. When both boats in competition break-out, the boat that breaks out the least will be declared the winner.
5. **Red Light and Break-out**
 - a. When a red light and a break-out occur during the same race, the boat that broke out will be declared the winner.
 - b. In cases where both boats in competition red light and break-out, the boat that red lights the least will be declared the winner.
 - c. In cases where both boats red light and one boat also breaks-out, the boat that has red lit and broke-out will be declared the loser and the other boat the winner.
6. All bracket boats must register into a specific ET bracket on their entry form.
 - a. A boat's best qualifying ET in the bracket it is registered in will be used to pair that boat in the bracket.
 - b. In the event all of a bracket boat's qualifying runs are quicker or slower than the bracket it is registered in, the boat will be paired as "slow boat" in the bracket for which it has registered.
 - c. Any driver wishing to change the ET bracket in which they are registered, must do so within thirty (30) minutes after the end of qualifying. No changes will be made on Race Day.

BRACKET INDEXES

<u>ET Brackets</u>	<u>Qualifying Time</u>	<u>Break-out</u>
7.00 SPE (Super Pro Eliminator)	7.00 - 7.999	6.999
8.00 PE (Pro Eliminator)	8.00 - 8.999	7.999
9.00 TE (Top Eliminator)	9.00 - 9.999	8.999
10.00 ME (Modified Eliminator)	10.00 - 10.999	9.999
11.00 SE (Stock Eliminator)	11.00 - 11.999	10.999
12.00 + RRC (River Racer Competition)	12.00 - Unlimited	11.999

(The 12.00 + bracket will compete with a staggered start)

Points and Awards

Each bracket class will compete for the year-end High Points Award.

1. Points will be awarded in the same manner as category classes and are not transferable.
2. To be eligible for the year-end High Points Award, a member must have competed in 51% of the NJBA points races in that bracket.

SUPER ELIMINATOR

This class is only open to boats that are already entered in a category or bracket.

1. Boats may run in one (1) category, one (1) bracket and super eliminator.
2. This class is designed to be a competition among drivers who have the quickest reaction time and run closest to their declared ET.
3. Drivers are required to declare their estimated ET prior to every run.
4. Drivers must declare their ET with the full second, 1/10 of a second, and 1/100 of a second. Example: 8.55.
5. Drivers may change their declared ET every round.
6. Boats competing with different declared ETs will be given a staggered start.
7. The boat with the slowest declared ET will be given the green light first.
8. The amount of "head start" the slower boat will be given is determined by the difference in the two boats' declared ETs.
9. Boats running quicker than their declared ET will be eliminated.
10. In the event both boats run quicker than their declared ET, the boat running closest to their declared ET will be declared the winner.
11. Super eliminator boats will run "Test and Tune" on Saturday instead of qualifying.