## ISR/USAC GENERAL RULES ALL EVENTS

#### A. DRIVER PROTECTIVE EQUIPMENT

- 1. One-piece driver suits are required. The suits must cover from the neck to the ankles and to the wrists. All suits must have the certification label attached and meet FIA 8856-2000, SFI Spec 3.2A/5, or higher.
- 2. Drivers must wear gloves and driving shoes that meet SFI Spec 3.3/5 or higher and have the SFI label attached. Gloves may not be modified or have any holes in them.
- 3. All driver apparel must be clean, in good condition, and free from rips or worn areas
- 4. All Drivers must wear long underwear, a balaclava, and socks homologated to the FIA 8856-2000 or SFI 3.3 standard.

#### A. Helmets

- 1. Full face helmets with a Lexan shield are required.
- 2. Helmets must be certified to a minimum of one or more of the following standards:
  - a) Snell Memorial Foundation SA2015 or better with a legible Snell sticker attached.
     Certification information may be found at the following web site <a href="http://www.smf.org/stds">http://www.smf.org/stds</a>
  - b) FIA 8868 with a legible FIA sticker attached.
- B. **Head and Neck Restraint** All drivers are required to properly wear a Head and Neck restraint that is endorsed and approved under SFI Specification 38.1 and must have the SFI Certification patch/sticker properly affixed to the device.

### **B. CONDUCT**

Every person associated with the event shall conduct himself according to the highest standards of behavior and sportsmanship, particularly in his relationship with other competitors and officials, and in a manner that shall not be detrimental to the reputation of the promoter, or to the automobile sport.

**Driver Responsibilities** - Drivers/Entrants shall at all times be responsible for the conduct of their crews at any event. An offense committed by a crew member may be directly chargeable to the driver.

**Team Members** - Team members are not allowed in controlled areas of the circuit unless specifically authorized. Controlled areas include, but are not limited to, the track surface and surrounding areas, race control, timing & scoring, and technical inspection areas.

**Ejection** - The Event Race Director may eject a licensed competitor from an event or from the racing premises to promote the orderly conduct of the event. An ejection is final and not subject to appeal or review.

### C. SIGNAGE, DECALS, MARKS

Only approved decals and signage may be displayed. No vulgar or profane signage allowed.

### D. TECHNICAL RULES AND VEHICLE INPSECTION

All off-road race vehicles are subject to inspection by Technical Officials at any time in any manner. All decisions by the Technical and Race Officials regarding the timing and manner of inspection, as well as

which race vehicles will be inspected, are final and not subject to appeal or review except as provided for in this Rule Book.

A. Passing through a Technical Inspection, or the issuance of the tech sticker is not an endorsement of the performance of the vehicle, nor an indication that the vehicle meets all of the required Technical Specifications. The tech sticker signifies that the vehicle has passed the initial Safety Inspection and will be permitted to go on course during scheduled practice, qualifying and race sessions.

### E. VEHICLE INSPECTION PROCESS

### A. Inspection Process

- All race vehicles must pass Technical Inspection or be approved by the Technical Director.
- At the conclusion of the qualifying and/or race, all vehicles must report to impound unless the Technical Director allows a specific exemption. The Technical Director will determine what items are to be checked, and what procedure is to be utilized. Items to be checked may be chosen by random draw.
  - A. Teams may not work on any car directed to impound until directed to do so by the Technical Officials. It is incumbent on each individual team to determine whether their car is subject to inspection.
  - B. The entrant shall stand the expense of disassembly, inspection, and reassembly. It is the duty of each team to satisfy the Technical Director and the Race Director that his automobile complies with these regulations in their entirety at all times during an event. The Technical Director may order the disassembly and inspection of any entered vehicle at any time during the official track days to ascertain its technical conformance.
  - C. The assigned officials have the authority to seal or impound race vehicles, or vehicle parts, entered and competing in an event.

### F. DRIVER/OWNER RESPONSIBILITIES

### A. Competitor Responsibilities

A. It is the responsibility of the competitor to present a race vehicle that is legal at all times. Out of compliance parts, equipment, or configurations on the race vehicle are not authorized or approved by reason of having passed through an inspection process at any time or any number of times.

### **G. RACE PROCEDURES**

- A. Meetings The event requires participants to attend meetings from time to time. There will be a mandatory driver meeting prior to each race to go over specific instructions about the race of event. Failure to attend these meetings could result in fines or other penalties. Roll call may be taken for all classes or specific classes. Being absent from the drivers meeting may result in a penalty as prescribed by the race director.
- **B.** Race Length Race length will be set by promoter and sanctioning officials.

### C. Starting Position

- A driver may only enter one race vehicle at a time, per race. If after entering the vehicle in practice/qualifying, a backup vehicle is used, the driver will be moved to the back of the grid.
- 2. The Sanctioning body reserves the right to modify the starting grid at any time due to force majeure.

#### H. RACE START/FINSIH LINE

- A. The start line may be at a different location from the finish line. Vehicles may be started from a grid area that they may or may not return to during the race. Therefore, it is necessary to indicate the start/finish line at each event. The indication of the Official start/finish line will be discussed at the pre-race drivers meetings.
  - B. Starting grid position spacing, both width and depth, will be established by the sanctioning body prior to each event.

#### I. STAGING

- A. All race vehicles must be in pre-race staging no later than 20 minutes before their class if there are no previous races, if there are previous races, vehicles must be in staging when the previous class is started. All vehicles that are on the staging grid must move to the starting line when directed.
- B. Vehicles arriving late to staging may be moved to the back of the field or released to the course by the Official Starter in some other manner.

### J. START OF RACE

- A. The Official Starter will indicate the start of the race by waving the green flag or by some other means.
- B. All race vehicles must maintain position until the Official Starter displays the green flag. If a race vehicle does not maintain its designated start line position, or leaves the start line prior to the green flag or other start signal, the Race Director may reposition the race vehicle at their discretion.
- C. Official scoring and timing begins when the green start flag or light is displayed. On rolling starts all vehicles must maintain position in line through the start arch or designated start line.

### K. POINTS/AWARDS FROM START

- A. Vehicles must move from the start line under their own power to be considered a "starter" and to be awarded points.
- B. Any vehicles that take the green flag but drop out of the race before the completion of the first official lap will be awarded points equal to finishing in the last place position.
- C. Restarts On restarts, the race will resume when the green flag is displayed. If the restart was precipitated by a red flag, Officials may reposition all race vehicles in the proper starting order. Race Director may alter restart format at any time. One lap is considered completed when all capable vehicles in the event make a complete lap of the course and cross the finish line flag stand.
- D. Race Halt A race may be stopped at the discretion of The Race Directors at any time if the track is not ready or unsafe for racing. The Race Director will determine whether the racetrack is in race condition for that event.
- E. Race Halt Before One Lap Completed When a race is stopped prior to the completion of one lap, there shall be a complete restart in the original starting positions with the exception that any race vehicle/s involved in an incident causing the red flag may be placed at the back/end of the restart order. No points or awards will be issued for the "halted" start. At tracks with a "land rush" start, complete restarts will be rolling two by two starts.
- **F.** Race Halt After One Lap Completion When a race is stopped after the completion of one or more laps by all able vehicles, race vehicles will line up single file in the order in which they were scored in the last completed lap, with the exception that any race vehicle involved in the incident causing the red flag will be placed at the back/end of the restart order. The leader will have lane choice.

G. Race Halt/Adverse Circumstances - Except as otherwise provided in Sanction Agreements or in entry forms published for the event, when an event is halted due to Force Majeure or Act of God and the promoter must refund money and or issue rain checks, prize money shall be paid only to those divisions due prize money for those events or races that were completed. Except as otherwise provided for in Sanction Agreements or in entry forms published for the event, when an event is halted due to Force Majeure or Act of God and the Promoter does not issue rain checks, the event may be rescheduled to a mutually agreeable date. Unless otherwise determined by the sanctioning body, the rescheduled event program shall start with the incomplete divisions of the previous race, and all original entries shall start in the position they held when the race or event was stopped.

### L. RACE COMPLETION

- A. All races at each event will run until the leader has completed the advertised time or distance. In timed races, the leader will be given the white flag by the Official Starter. In lap events the Official Starter will give the white flag when advised by the Race Director that one lap remains.
- B. A race may be called complete after 50% of the time and/or laps have been completed. If there is no restart, drivers will be scored and paid on the positions they would have held in a restart.

### M. LAP OR TIME PENALTIES

A lap or time penalty is the act, during a race, of detaining a driver in the penalty box for a certain amount of time, as determined by The Race Director. A time penalty may be imposed when the competitor has violated the Series rules, directive, or race procedure.

#### N. CEASE COMPETITION

The Race Director may direct a competitor to cease competition, to leave the racing premises, or to bring the race vehicle to the pit area for a specified time penalty or for the balance of the race if it is necessary to do so in order to promote the orderly conduct of the event.

### O. OFF COURSE PROCEDURE

If at any time the race vehicle gets off of the designated racetrack, the vehicle speed must be reduced significantly and while under control, the vehicle must merge back into the race line safely without a gain of time or position.

### P. DIRECTION OF TRAVEL

Vehicles must race under their own power and exclusively in forward gears only, reverse gear is permitted only to correct a spin or incident. Race vehicles must cross the finish line in proper orientation, vehicles are not allowed to back through or cross the finish line in reverse.

### Q. HAZARDOUS CONDITIONS OR CONDUCT

If at any time a The Race Director feels a competitor or vehicle is a hazard to other competitors, the vehicle may be pulled from competition.

### R. FEES

Entry fees cannot be refunded once a vehicle enters the racecourse for practice or competition. Unless damage occurs in the first round of practice and the vehicle is unable to compete in at least one round of competition, a pro-rated refund will be allowed. All refunds must be requested within fourteen days after the conclusion of the scheduled event.

#### S. DRIVER CHANGES

A. An eligible driver may drive any qualified race vehicle in any event.

- B. A rookie driver must have hot lapped the race vehicle that he or she intends to compete.
- **C.** Prior to Race Start Changes of driver at any time will not be made without advance notification to the Race Director.
- **D.** During a Race When the race is in progress, changes must be made in hot pits or pit area only. If a driver change is made during a red flag condition the race vehicle must relinquish its position and restart at the rear of the field.

# ISR/USAC FLAG RULES- ALL EVENTS

### Flag Rules

Sanctioning body will use flags and/or lights as set forth in this section for the purpose of providing drivers with information. The procedure for use of flags and or lights by Officials may vary from individual events.

**Green Flag** - Green Flag is used to indicate that the racetrack is clear and the session is under way. When displayed by the starter, signals the beginning or resumption of a session.

**Blue Flag** - Blue Flag with Diagonal Yellow Stripe/Passing Flag- This flag signifies a lapping vehicle is attempting to pass. Race vehicles given this flag must hold a consistent line, and not impede the progress of the lapping vehicle(s).

### Yellow (Caution) Flag

The Yellow Flag/Caution flag signifies caution. This flag will be given to the first race vehicle approaching the caution area. All race vehicles receiving the yellow flag shall slow down and maintain vehicle spacing. Only Official Safety Personnel will attend to the race vehicles and drivers involved in the cause of the caution flag. Officials, at their discretion, may request assistance from trained crew members for track assistance.

All corner workers showing a yellow flag will indicate either a local yellow, or a full course yellow. Drivers are to be observant of all flag workers and determine if it is a local or full course yellow flag. Drivers are to also listen for radio communication from the race director determining if it is a local or full course yellow. Timing or lap counting may cease when there is a full course yellow, at the discretion of the Race Director.

All corner workers showing a yellow flag will indicate full course yellow. Timing or lap counting may cease when there is a full course yellow, at the discretion of The Race Director.

**"Local Yellow"** is a yellow situation affecting only the immediate area of the corner worker. All race vehicles approaching a local yellow shall slow down as indicated by the Race Director during driver meetings. Caution speed will be maintained until 100 feet safely past the local yellow area.

Any race vehicle passing or not abiding the caution flag and/or pace vehicle, or the proper caution speed will be assessed a penalty. Vehicles that are attempting to enter the pits for service, may pass the pace vehicle, but must exercise caution and care in the passing maneuver.

Reasonable speed is a judgment call and will be made by the Race Director. The Race Director will also determine the length of the penalty. Corner workers will report to the

Race Director, and have input in making the penalty call and determining reasonable speed and penalty for the condition and infraction.

### **Red Flag**

The red flag is used to stop the race immediately, regardless of position of the race vehicle on the track. The red flag shall be used if the track is unsafe to continue the race. The Race Director is the only person that can call for a Red Flag. The Corner Workers will display the red flags throughout the track. Failure to obey a red flag will result in disqualification.

Repairs, refueling or service of any nature will not be permitted when the race is halted due to a red flag and no work is to be performed on race vehicles when the red flag is displayed unless approved by the race director. Work cannot resume until the red flag is withdrawn and approved by the Race Director.

### **Black Flag**

The (open/unfurled) black flag is displayed at the finish Line, and is used as a penalty flag and can only be displayed at the discretion of the Race Director.

At the discretion of the Race Director, if the driver does not obey the flag directive, scoring of his or her race vehicle will be discontinued. If a driver receives a black flag during the final two laps and does not obey the flag directive, the Race Director may drop the finish position of the vehicle, deduct championship points, or both.

In lieu of a black flag, the Official may use a blackboard on which the number of the race vehicle being black-flagged will be shown.

Black flag decisions cannot be protested or appealed.

**Furled Black Flag** - A furled black flag is a warning and notification that race officials are observing him/her.

### Black Flag /Rough Driving Rules

- A. Any driver receiving a black flag for rough driving in a race will receive a minimum of a 5-second stop-and-hold penalty.
- B. Any driver receiving two rough driving black flags in a single race will receive a minimum of a 30-second stop-and-hold penalty.
- C. The Race Director will reserve the right to assess further penalties, probation, etc., depending on the nature of any rough driving black flag incident. Recurring incidents will receive severe penalties including, but not limited to, disqualification from that race.

### White Flag

- A. A white flag displayed by the starter signals that the leader has started his or her last lap. The white flag will only be shown at the finish line by the Official flagman.
- B. Race vehicles may not receive any assistance after the white flag has been displayed except race vehicles on a regular pit stop. Violation will result in the race vehicle not being scored on that lap.
- C. Last lap of the race will be competed under race conditions.

### **Checkered Flag**

- A. The checkered flag is displayed to signal that the race is completed.
- B. When the checkered flag is displayed to the leader, the balance of the field receives the checkered flag in the same lap. Finishing position will be scored according to most laps traveled in the allocated amount of time, whether the race vehicle is still running or not.

C. All drivers receiving the checkered flag must bring their race vehicle to the designated finish area and remain there until released.

# ISR/USAC VEHICLE NUMBERING

- A. All vehicle numbers must be solid color backgrounds as follows:
  - 1. Pro Stock SXS White background with black numbers
  - 2. Pro Mod SXS Black background with white numbers
  - 3. Sportsman SXS- Yellow background with black numbers
- B. Team vehicles with the same paint and colors must have distinguishing markings of some kind.

### ISR/USAC TIMING/ SCORING/COMMUNICATION

#### **TRANSPONDER**

- A. All classes are required to carry a functioning transponder required by the sanction.
- B. The transponder must be mounted vertically, at a maximum of 120 cm (4') above the track and no further forward than back of the driver seat.
- C. The transponder must have clear view to the track with no obstructions, metal or carbon fiber underneath. Maximum operating temperature should not exceed 122F/50°C.
- D. It is the entrants' sole responsibility to insure the transponders are installed and functioning properly. Series will not be responsible for qualifying times and/or race finishing positions of vehicles with inoperative or malfunctioning transponders.

### **RADIOS**

- A. A spotter with radio communication is mandatory.
- B. All Drivers must also wear and use a race control radio receiver monitoring frequency 454.500 to be able to hear and follow instructions from the race director.
- C. Teams must monitor the official Race Control frequency. Transmitting on the Race Control frequency is not allowed.
- D. Radios must be of two-way voice communication type only.
- E. Each race team is responsible for meeting FCC requirements and regulations.
- F. Radios must operate independently of vehicles electrical system.
- G. Radio communication between team drivers is not permitted.
- H. No scanning type radios that can transmit voice or other communicative noise will be allowed.

# ISR/USAC VEHICLE REQUIREMENTS

### **SEAT BELTS**

- A. A quick release lap belt not less than three inches wide is required. A 2-inch belt may be used provided it is certified to SFI spec 16.5. Both ends of the lap belt must be fastened to the roll cage bar. Bolt in style belts must be fastened with high quality graded bolts, not less than 3/8". Clip in style belts must be cotter pinned or safety wired. Cam Lock type belts are not allowed.
- B. Shoulder harnesses are mandatory. Harnesses must be no less than three inches wide and must come from behind driver's seat. 2 inch harnesses may be used provided they are certified to SFI spec 16.5. When crossing the roll cage the harness must pass through a steel guide welded to the cage that will prevent the harness from sliding from side to side.
- C. A crotch belt is mandatory and must be securely mounted to the lower seat frame or roll cage at the bottom, and to the lap seat belt on the top.
- D. At any place the lap belt, harness, or crotch belt passes over any substance that could cause cutting of the belt, the belt must be rolled, padded, or have a grommet installed.
- E. All seat belts and shoulder harnesses must connect at the lap belt with a quick release buckle. Cam lock buckles are not allowed.
- F. Seat belts must be certified to SFI specs 16.1 or 16.5 and dated by the manufacturer. Belts must not be used beyond two years after stated date. Seat belts may be rejected by TECH officials if dirty, frayed, oily, greasy, or otherwise considered unsafe by officials.

#### **FIRE PROTECTION**

A. All race vehicles are required to have an onboard, SFI 17.1 approved (5-pound minimum) fire suppression system.

#### **SEATS**

- A. Only manufactured race seats are permitted. Custom manufactured seats must be approved by Technical officials.
- B. All seats, rib protectors, leg extensions, and head rests must be padded.
- C. Head rest padding must be certified to SFI Spec 45.2.
- D. Seat must be located within roll cage structure.

### ISR/USAC

### MEMBERSHIP REQUIREMENTS

#### **MEMEBERSHIP**

- A. Driver membership is open to all drivers 18 years of age or older.
- B. Crew memberships are available to anyone who will turn 14 years of age in the calendar year they are participating in.
- C. Junior division driver memberships are available to anyone who will turn 14 years of age in the calendar year they are participating in.
- D. Fee's for membership are at the discretion of the affiliate.

### ISR/USAC SIDE BY SIDE VEHICLES GENERAL RULES 1-18-2018

### ISR/USAC SIDE BY SIDE VEHICLES GENERAL RULES 1-18-2018

### PRO SXS Class Rules and PRO Stock Technical Specifications

### Class Definitions and Overview-SXS

Pro Stock - Stock 1000 cc SXS rules are outlined below. It is the intention that all modifications allowable are outlined below for the stock and modified classes, and all other parts/ components that can affect or enhance the performance of the vehicle must remain stock. The Technical Director holds final decision-making power on any stock/ non-stock component deemed legal or illegal to race.

Pro Modified - Up to 1000cc SXS Production Chassis & Engine, with modifications as outlined in class rules.

#### SXS - 1 VEHICLE SIGNAGE

- A. Advertising on race vehicles must be in good taste.
- B. USAC/ISR may require the use of specific sponsor decals.
- C. Team vehicles with the same paint and colors must have prominent distinguishing markings of some kind. Tech Director reserves the right to require additional markings to help distinguish between vehicles.

### SXS - 2 NUMBERS AND STICKERS

A. Numbers are 0-99 for the Pro Stock class, BLACK NUMBERS ON WHITE BACKGROUND.

Numbers are 0-99 for the Pro Modified class, WHITE NUMBERS ON BLACK BACKGROUND.

Numbers are 0-99 for the Sportsman division. BLACK NUMBERS ON YELLOW BACKGROUND.

- 1. Numbers must be applied side by side. No slanted numbers.
- 2. Numbers must be mounted in a fashion that keeps them as clean and unobstructed as possible.
- B. All vehicle numbering is assigned by USAC/ISR.
- C. USAC/ISR officials may require a competitor to use a different number to avoid confusion or duplication at an event.
- D. In the event that a number is not visible from the timing and scoring area, the competitor will not be scored. It is the competitor's responsibility to make sure that the number is visible during all race conditions.
- E. Foil or reflective numbers are not permitted.
- F. All USAC/ISR vehicles are required to have USAC stickers on each side of the front of the door area, 4 inches down from the window opening.
- G. One number on each side of the vehicle, on a number plate mounted high and close to the back of the roof. Minimum number plate size: 10 inches high by 14 inches long. Minimum number size: 8 inches by 1 1/2 inches.

- H. The back of the vehicle facing the rear, on a number plate: Minimum number plate size: 6 inches high by 8 inches wide. Minimum number size: 5 inches by 1 1/2 inches.
- I. Roof: Minimum number size: 8 inches by 1 1/2 inches.
- J. Upper left-hand corner of windshield area: Minimum number size: 4 inches.

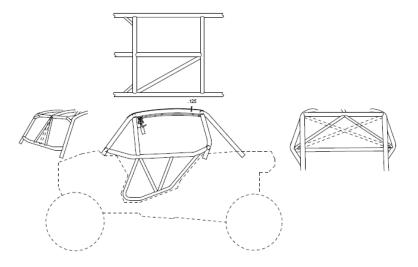
### SXS - 3 ROLL CAGE AND CHASSIS

- A. All vehicles must utilize the stock chassis and maintain stock appearance. The stock chassis (frame) is defined as the main lower rails running along the inner sides of the SXS and the front and rear tubes that connect them. The chassis may be modified for durability and strength but must retain the stock width, length, and configuration. Any modifications must be pre-approved by USAC /ISR officials.
- B. No carbon fiber or titanium materials allowed in chassis or body construction. CF and Ti allowed in engine configuration, only if produced OEM. Carbon fiber may be used in exhaust mufflers, cans, and resonators.
- C. After market roll cage required.
- D. Cages must be constructed with one front vertical hoop, one rear vertical hoop, two Inter-connecting top bars, two rear down braces, one diagonal brace, and all necessary gussets. Welded "B pillar" connection points are permissible.
- E. Two top interconnecting bars must be placed as far to the outside of the top part of the front and rear hoops as possible.
- F. Rear down braces and diagonal brace must angle a minimum of 30 degrees from vertical. At the bottom of the diagonal brace there must be a cross member of the same tubing material and dimensions as the hoop.
- G. There must be a minimum of 3 inches clearance between driver's helmet and roll cage.
- H. Gussets must be installed at all major intersections, including diagonal and rear down braces, where single weld fractures can affect occupant's safety.
- I. Gussets may be constructed of minimum .090-inch x 3-inch x 3-inch flat plate or tubing gussets made of same material and thickness as roll cage.
- J. Roll cage terminal ends must be attached to a frame or body member that will support maximum impact and not shear or allow more than 1 1/2 inches of movement in the cage terminal end.
- K. Minimum tubing diameter and thickness is 1 1/2inch diameter by .095.
- L. Roll cage material must be DOM or 4130 chromoly.
- M. All tubing, welds, gussets, and roll cage construction must be approved by USAC.
- N. Entire roof must be covered with sheet metal or .063-inch minimum aluminum.
- O. Top left half of roll cage above driver's head must have one 1 1/2 inch x .095inch diagonal bracing bar.
- P. It is recommended that stock cage and seat belt mounting plates be reinforced, especially on Pre-2012 vehicles.

Q. Rear Firewall: Firewall must be as high/tall as harness bar. Stock plastic is allowed, but competitors are encouraged to use .063 aluminum minimum.

### R. SPORTSMAN DIVISION CAGES:

- 1. Must retain all bed plastics and panels.
- 2. Bolt on or weld on cages are permitted.
- 3. If weld on style, weld joint must be within 4 "of stock junctions.



### SXS - 4 DOORS

- A. Door area must be covered with sheet metal or a minimum of .063-inch thick aluminum. Panel must be attached with bolts or dzus buttons.
- B. Door top tube must be a minimum of 1 1/2 inch diameter X .095 wall thickness DOM, or 4130 Chromoly.
- C. Doors must have a A, V or X design to protect drivers area.
- D. Lower U shape tube and all A, V or X designs must use a minimum 1 1/4 inch diameter by .095, 4130 chromoly or DOM.

### SXS - 5 DRIVER COMPARTMENT

- A. Driver must be able to enter and exit, unassisted and with great ease, the driving compartment with the vehicle in any position. Firewalls and/or bulkheads must separate the driving compartment from any fuels, engine fluids, and acids.
- B. Driver's seat must be in stock location and be bolted in. Seat may be lowered. Race seat is required. Must meet SFI Requirements. If no passenger seat is used, gas tank area must be completely covered with aluminum firewall.
- C. A 5-point motorsports specific harness is mandatory. It must be in spec with the manufacturer's date tag.

- D. Driver side window net is mandatory, and must be latch style, no spring loaded design bars allowed. construction must be 1/2 inch solid steel rod.
- E. Reinforced floor pan is recommended.
- F. Rock screens must cover entire area in front of driver.
  - 1.Construction to be a minimum of .120 rod and rod spacing shall be no greater than a maximum 1.5 inch opening.

### SXS - 6 MEASUREMENTS AND WEIGHTS

- A. All measurements will be performed with USAC technical instruments and gauges. USAC officials determine all measurements and center points.
- B. Weights: Pro Stock minimums:
  - 1. RZR 1600 LBS with driver.
  - 2. YXZ 1700 LBS with driver.
- C. Pro Modified minimum vehicle weight:
  - 1. Pro Mod with Turbo 1750 LBS with driver.
  - 2. Pro Mod Naturally Aspirated (NA) 1550 LBS with driver.
- D. SPORTSMAN DIVISION minimums:
  - 1. RZR / Can Am 1650 LBS with driver.
- E. All ballast must be securely mounted with at least two 5/16" bolts with locknuts that are wired or pinned.
- F. Additional models will be added to this section as data becomes available and is verified. Updates will be released in an upcoming Tech Bulletin.

### SXS - 7 FENDERS

- A. Fenders must be securely attached to vehicle. The removal of fenders during competition during any reason other than damage incurred during the race will result in disqualification.
- B. Fenders must be attached in such a fashion as not to create a pointed or sharp extrusion when removed. A loop body mounting bracket construction is mandatory.
- C. Additions to the body of the race vehicle, such as fins, scoops, wings, and other extruding additions will not be permitted.
- D. Vehicles must maintain an appearance similar to the stock SXS.
- E. All body panels must be stock or aftermarket stock replacement.

### SXS - 8 BUMPERS

A. Vehicles must have front and rear bumpers. USAC officials must approve all bumpers.

- B. Bumpers must be designed in such a way as to inhibit two vehicles from becoming locked together.
- C. Ends must be capped and rounded with no sharp edges.
- D. All classes are to have side nerf bars.
  - 1. Nerf bar to be a minimum 1" diameter mild steel.
  - 2. Must be as wide as centerline of tire or wider from front of vehicle to back.
  - 3. Must be capped and rounded, no sharp edges exposed.
  - 4. Distance of protection must be no greater than 12" from rear tire.

### SXS - 9 SKIDPLATES AND FLOORBOARDS

- A. Skid plates designed to reasonably protect the front suspension, steering, and brake components are recommended on all vehicles. Plates must be made of metal and be securely attached.
- B. Stock SXS floorboards are acceptable but extra protection made of metal or aluminum is highly recommended.

### SXS - 10 SUSPENSION

- A. All A-arm mounting points must remain in the stock location and position as delivered from the manufacturer, however they may be reinforced for strength.
- B. Pro Stock: Must maintain OEM Track Width.
  - 1. No wheel spacers allowed.
- C. Pro Stock: Must maintain OEM Wheel Base. No shortening or lengthening.
- D. Minimum ride height of 8" as determined by technical inspector.

### SXS - 11 STEERING

- A. All steering components must be in good condition and proper working order. Drag link and tie rod ends must be secured with a cotter pin in each one.
- B. Power steering is permitted.
- C. Steering "quickeners" are permitted in the Pro Stock class.
- D. USAC officials must consider steering reasonably safe before vehicle is permitted to compete.

### SXS - 12 SHOCKS

- A. There must be at least one and only one shock absorber per wheel in working condition at the start of the race.
- B. Pro Stock: Upper shock mounts must remain in stock location. No bolt on extensions. No bypass shocks.
- C. BUMP STOPS Suspension bump stops must be of the solid type.

D. TORSION SYSTEM - The only torsion system that is acceptable is a coil-over shock.

### SXS - 13 BRAKES

- A. Brakes must be in safe working condition and be able to apply adequate force to lock up all four tires.
- B. Brakes must remain in safe working condition during entire event.
- C. Turning or cutting brakes are not permitted.

### SXS - 14 ENGINE

- A. All vehicles must use OEM engine cases and cylinder head. USAC reserves the right to mark engine blocks prior to event.
- B. All vehicles must use same fuel delivery system as stock and designed by factory.
- C. Electric fuel pumps are permitted in accordance with USAC safety requirements for fuel pumps.
- D. Pro Stock: engine displacement not to exceed 1000 cc.
- E. Pro Stock: Engines must remain completely stock. No internal modifications.
- F. Pro Stock: Stock throttle body must be used. No modifications allowed.
- G. Pro Stock: All internal and external components must be used in their original configuration.
- SXS 15 SUPERCHARGERS & TURBOCHARGERS Superchargers or turbochargers are not permitted in Pro Stock class.
- SXS 16 AUXILLARY EQUIPMENT All vehicles must start race with a functional generator or alternator, fan, water pump (water- cooled vehicles), and a complete functional electrical system.
  - 1. GPS is allowed.

### SXS - 17 IGNITION

- A. All vehicles must have a positive action on/off switch in good working order. Switch must be labeled "ignition on/off", have a red circle around it, be located on the left-hand side of the dash panel, and must be accessible from the outside of the race vehicle. Red locater decal/circle must be at least 1 inch wide around switch.
- B. All electric fuel pumps with independent switches must be labeled "fuel on/off" and be within easy reach of the driver and accessible from the outside of the vehicle.
- C. Pro Stock: Stock ignition switch is allowed.

### SXS - 18 BATTERIES

- A. Batteries must be securely mounted with metal-to-metal tie downs.
- B. Wetted fiber or gel cell batteries only. Liquid lead acid batteries are not permitted.

C. Batteries may be located in the driver's compartment with an adequate firewall or factory engine cover.

### SXS - 19 COOLING

- A. Oil coolers, transmission coolers, and radiators located ahead of the driver or in the passenger compartment must have a shroud that will prevent liquids from blowing back or leaking onto the driver in the event of a rupture or leakage.
- B. All hoses running through the driver compartment must be shielded. Steel braided hose does not constitute a shield.

### SXS - 20 EXHAUST

- A. Pro Stock: Aftermarket exhaust is allowed. In all classes, exhaust systems must be a minimum of six inches away from fuel lines and twelve inches away from fuel filler. Muffler must meet a maximum decibel of 100 as measured 50 feet from track side.
- SXS 21 STARTER All vehicles must be self-starting by use of an onboard electric starter.

### SXS - 22 ENGINE REPLACEMENT

- A. Engines may be replaced during a USAC event only if competitor has notified USAC officials.
- B. Engine change will result in a starting position change.

### SXS - 23 FUEL CELLS

- A. All fuel cells must be USAC approved.
- B. USAC will reject any previously approved fuel cell, which appears to be defective, damaged, or not in proper condition.
- C. No pressure systems will be allowed. Any concealed or not concealed pressure type containers, feed lines or actuating mechanisms will not be permitted, even if inoperable.
- D. Icing, Freon type chemicals, or refrigerants may not be used in or near the fuel system.
- E. The use of a commercially manufactured fuel cell is mandatory. Aluminum cans with foam inside are not allowed.
- F. Safety fuel cells shall consist of a bladder enclosed in a smooth skinned container. The container shall be constructed of 20-gauge steel, 0.060-inch aluminum or 0.125inch Marlex. Rotary molded polymer cells are acceptable.
- G. No material other than standard foam as provided by the fuel cell manufacturer is permitted.
- H. Fuel cell must have a chassis or body cross member of substance between the fuel cell and driver and be protected from ground obstacles.
- I. Fuel cells must be dated from manufacturer. Fuel cells will become obsolete five years after date of manufacture and must be replaced
- J. All fuel cell fillers and vents must have check valves installed.

- K. Fuel filler lines and positive-locking non-vented fuel filler caps must be located and secured in such a manner as to prevent them from being knocked off or opened during movement, rollover, or impact.
- L. A splash shield must be in place to direct any spill away from the driver, motor, and motor exhaust. A body panel is considered a sufficient splash shield.
- M. Fuel cell cannot be vented into the driver's compartment of any vehicle.
- N. All mountings must be USAC approved. Fuel cell must be mounted to chassis and cannot be mounted on skid plate.
- O. Any fuel cell mounted in the passenger compartment area must be fully enclosed with sheet metal or aluminum.
- P. Any battery or electrical components mounted in the passenger compartment with the fuel cell must be separated by sheet metal or aluminum.
- Q. Pro Stock: Stock fuel tank is allowed in stock location. Tank, lines and fuel filler may not be modified in any way. Minimum 1/8 inch aluminum plate must be added on right outer side of body to protect stock tank.

### SXS - 24 FUEL VENT ROUTING

- A. All fuel cell vents and lines must come out of the top of the fuel cell
- B. Cooling of any type of fuel is not permitted during competition.
- C. In the event an "official fuel" is named, USAC will sample the actual fuel provided at the track by the fuel supplier and that sample will become the benchmark from which all competitor's samples will be judged.
- D. USAC has the right to sample a competitor's fuel at any time. All samples will be impounded for observation and/or testing by USAC or outside laboratories at USAC discretion.
- E. No nitrous oxide.
- F. If USAC officials suspect maskers in the fuel, chemical testing will be conducted at possible expense to the competitor.
- G. Penalties for use of hazardous chemicals will be severe including fine, and/or reduction of points, and/or suspension.

### SXS - 25 TRANSMISSION

- A. Every vehicle must use the OEM transmission and clutch design.
  - 1. CVT transmissions: OEM gears allowed. (No aftermarket or performance gear sets.)
  - 2. Pro Stock: YXZ vehicles must use OEM gear ratios and flywheel.
  - 3. Cryo treating and or polishing allowed.
- B. The stock rear differential must also be used.
- C. All vehicles must have a functional reverse gear.

### SXS - 26 CLUTCH

- A. Pro Stock: Must use OEM clutch design as delivered from manufacturer.
- B. No billet clutches. Clutches may not be modified in any way.
- C. After market springs, weights and helix are allowed.

### SXS - 27 WHEELS AND TIRES

- A. Maximum tire size is 30 inches outside diameter.
- B. No more than 1 tire per corner is permitted.
- C. Tires will be visually checked and must be considered reasonably safe by USAC prior to competing.
- D. Bead locks allowed, must have recessed bolts only that do not protrude past the face of the clamp ring, or must use button head style bolts.

### SXS - 28 FASTENERS

- A. All components on the vehicle's suspension system, chassis, and running gear must be secured with S.A.E. Grade 8 or better nuts and bolts.
- B. Bolts must be secured with either lock nuts, lock washers, cotter pins, or safety wire and have at least one full thread showing through the nut.
- SXS 29 HOSES All fuel and brake line hoses including metal lines and fittings must be clamped and/or safety wired.
- SXS 30 MIRRORS Rear view mirror with at least 6 square inches of mirror surface and a reasonably unobstructed view of area behind vehicle is recommended on all vehicles.

### SXS - 31 TRANSPONDERS/TIMING

- A. Remote score timing devices will not be permitted by teams, owners, or anyone associated with an entry, unless approved by USAC.
- B. All teams are required to purchase remote timing transponders. Transponders can only be purchased through USAC and numbers must be recorded with USAC officials.
- C. Drivers are responsible for the charging and installation of all transponders. Any entry without a properly installed, functioning transponder may not be scored and may be subject to further penalty.
- D. Transponders must be mounted 10 inches back from the leading edge of the front bumper and a maximum of 15 inches in height with a clear view to the track surface.

### SXS - 32 DUST LIGHT

- A. A minimum of one rear dust light is required.
- B. The light must be an amber LED with a round 2.5 inch diameter, or rectangular with a 2"x6" dimension minimum.

### Technical Specifications – PRO Modified SXS

SXS\_MOD- 1 PRO MODIFIED: Up to 1000cc SXS Production Chassis & Engine, with modifications.

### SXS MOD- 2 PRO MODIFIED SHOCKS

- A. There must be at least one and only one shock absorber per wheel in working condition at the start of the race.
- B. Shock absorber mounting points may be moved.
- C. Upper shock mount locations may be modified. No bolt on extensions.
- D. BUMP STOPS Suspension bump stops must be of the solid type.
- E. TORSION SYSTEM The only torsion system that is acceptable is a coil-over shock.
- F. On-board adjustments are permitted in Pro Modified Class.

### SXS MOD- 3 ENGINE

- A. All vehicles must use stock engine cases and cylinder head. USAC reserves the right to mark engine blocks prior to event.
  - 1. Pro Mod NA vehicles are allowed to bore to 1075cc.
- B. All vehicles must use same fuel delivery system as stock and designed by factory.
- C. Electric fuel pumps are permitted in accordance with USAC safety requirements for fuel pumps.
- D. SUPERCHARGERS & TURBOCHARGERS Factory Installed Superchargers or turbochargers are permitted in Pro Modified class. Dealership installations are not considered factory installations.\*
  - 1. Must be OEM inducer and exducer dimensions, no modifications allowed.
  - 2. Billet turbo wheels allowed.
  - 3. Aftermarket waste gate controller/actuator allowed.
  - 4. Must be fitted to OEM manifolds.
  - 5. All turbo engines must retain stock bore and stroke configuration.
  - 6. All turbo engines must use OEM internal components.
  - 7. All turbo engines must use OEM valve train.
  - 8. Additional rules may be added to this section in the next 30 days. Technical research is still being conducted to determine final rules. Updates will be released in an upcoming Tech Bulletin.

### SXS\_MOD- 4 TRANSMISSION

- A. Every vehicle must use the OEM transmission and clutch design.
  - 1. CVT transmissions: OEM gears allowed. (No aftermarket or performance gear sets.)

- 2. Pro Modified: YXZ vehicles must use OEM gear ratios.
- 3. Flywheel modifications allowed.
- 4. Cryo treating and or polishing allowed.
- B. The stock rear differential must also be used.
- C. All vehicles must have a functional reverse gear.
- D. Aftermarket axles and CV joints are allowed.

### SXS\_MOD- 5 CLUTCH

- A. Billet clutches are allowed and may be modified in any way.
- B. After market springs, weights and helix are allowed.

### SXS\_MOD- 6 SUSPENSIONS

- A. All A-arm mounting points must remain in the stock location and position as delivered from the manufacturer, however they may be reinforced for strength.
- B. Pro Modified: maximum width 74"
- C. Pro Modified: no lengthening of the factory frame

Any "long travel" suspension kits must be commercially available no later than 60 days before an event and in sufficient quantities to supply 75% of the event entries.