3.0 TECHNICAL REGULATIONS

3.1 Vehicle Eligibility

3.1.1Vehicle Registration

Each vehicle entered in a NASA Rally Sport event must have a current and valid vehicle registration. This requirement may be waived for closed venue events.

3.1.2 Street Legality

Each vehicle competing in an event must carry all the equipment required by State and Federal laws to operate on the public highways. Required equipment must remain in good operation throughout the running of the event. Should the competing vehicle be detained or removed from operation during an event by a law enforcement officer, the competitor may not seek remedy or relief under these GRRs. This requirement may be waived for closed venue events.

3.1.3 Vehicle Eligibility

Vehicles eligible for events must be production based four wheeled passenger vehicles generally available for purchase by the general public. "One-of" vehicles specially built from the ground up for competition use is prohibited. To this end, the frame, floor pan, basic body shell, and firewall must remain original but may be modified for strength or to accommodate legal components. Exterior panels, including fenders, engine hood and trunk lid of hatchback must be present and visually similar to the original components.

In addition to the class definitions, all vehicles must meet the safety requirements of the GRR Articles 3.6.

Other vehicles may compete at the discretion of NASA Rally Sport.

3.1.3.1 Definitions

a. **Model**: All vehicles belonging to a production series, distinguishable by a specific conception and general exterior lines of the bodywork and by the identical method of transmitting the engine power to the drive wheels. Supercharged/turbocharged vehicles will be considered as different models than normally aspirated versions of the same car. The terms turbocharged and supercharged will be used interchangeably within this document.
b. **Model variant**: A model may exist in several variants as to bodywork (i.e.: 2 door sedan, 4 door sedan, coupe, station wagon etc.) or with regard to mechanical components.
c. **Interior bodywork**: cockpit and trunk
d. **Exterior bodywork**: All the entirely suspended parts of the car licked by the air stream.
e. **Chassis**: The overall structure of the car around which are assembled the mechanical components and the bodywork including any structural part of the said structure.
f. **Original equipment**: All items of standard or optional equipment that could have been ordered with the particular bodywork variant of the car, installed on the factory production line, and delivered through a dealer in the United States or, for group N, as provided for in the homologation papers for the vehicle. Dealer installed options, except as required by the manufacture directive (no matter how common), are not included in this definition.
g. **Automatic Transmission**: This is made up of a hydrodynamic torque converter, a box with epicyclical gears equipped with clutches and multi-disc brakes and having a fixed number of reduction gears, and a gear change control. The gear change can be achieved automatically without disconnecting the engine and gearbox, and thus without interrupting the engine torque transmission. Gearboxes with continually variable transmission

are considered as automatic gearboxes with the particularity of having an infinite number of reduction ratios.

3.2 Vehicle Class and Preparation Regulations

Vehicle class and preparation regulations will be per the requirements of the individual event organizer and/or series, but all vehicles, not otherwise excepted, must at a minimum meet NASA Rally Sport Technical Regulations.

3.2.1 General Conditions

3.2.1.2 Lights

a. Original headlights may not be changed or removed. However, the frontal glass, reflector and bulbs are free, provided they are in compliance with the legal requirements of the province or state of registration.
b. A headlight shall be considered as any lighting device throwing a beam toward the front of the vehicle (dipped-beam, long range lamp, anti-fog lamp).
c. Auxiliary headlights may be fitted, provided the number installed is even.
d. It must be possible to turn off all high-beam headlights and auxiliary lights with a single switch, which must leave the low-beam headlights functioning.
e. It must not be possible to operate any fog lights fitted without the front marker lights and taillights operating.
f. Auxiliary reversing lights may be fitted. All reversing lights may only switch on by engaging reverse gear.
g. It is not permitted to fit any device that can alter the normal functioning of the brake lights.
h. The mounting of maneuverable searchlight(s) is prohibited.

3.2.2 Wheels and Tires

a. Wheels:
    i. The wheels are free, regarding the maximum diameter and maximum width.
    ii. The use of wheels with lesser dimensions is permitted.
    iii. Wheels made from forged magnesium are forbidden (including standard wheels).
    iv. Wheels fixations by bolts may be changed to fixations by pins and nuts provided that the number of attachment points and the diameter of the threaded parts as indicated on drawing 254-1 are respected.
    v. Air extractors added on the wheels are forbidden.
b. Tires:
    i. Tires are free provided that they can be mounted on those wheels.
    ii. The use of any device for maintaining the performance of the tire with an internal pressure equal to or less than the atmospheric pressure is forbidden. The interior of the tire (space between the rim and internal part of the tire) must be filled only with air.
    iii. The spare wheel may be brought inside the driving compartment, on condition that it is firmly secured there and that it is not installed in the space reserved for the occupants.

3.2.1 Prototype Classes

Prototype Class consists of modified four wheel drive cars. The class is split into two sub-classes:

a. **Prototype 1**: four wheel drive with forced induction engines
b. **Prototype 2**: four wheel drive with naturally aspirated engines

3.2.1.1 Definition

a. Any vehicle with a four wheel drive driveline.
b. This includes vehicles of series or limited production which are modified beyond what is permitted in FIA Group N,
a. Vehicles, which do not comply with Prototype 1 Class, but do comply with FIA regulations for Group A rally cars (including World Rally Cars) are permitted to compete in Prototype 1 class, but shall not be eligible to score points for the Eastern States Rally Championship.

3.2.1.2 Engine

a. The engine, although unrestricted, must be manufactured by the same parent company as the vehicle manufacturer.
b. Engine Displacement.

   Engine displacement after adjustment shall be no greater then 5100 cm^3.
   Adjusted engine displacement is calculated by multiplying the actual displacement by the multipliers listed below:

	Prototype 1	Prototype 2
Rotary	1.8	1.8
Supercharged	1.7	
Four or more valves per cylinder	1.0	1.2
Three valves per cylinder	1.0	1.1
Two valves per cylinder	1.0	1.0
Pushrod	0.8	0.8
Diesel	0.8	0.8

3.2.1.3 Supercharger Restrictions For Prototype 1 Class

a. All supercharged cars must be fitted with a restrictor fixed to the compressor housing unless the compressor air inlet internal diameter is equal to or smaller then the required restrictor internal diameter.
b. If a restrictor is required by (i) above then all air necessary for feeding the engine must pass through this restrictor but in all cases must respect the following:
c. The maximum internal diameter of the restrictor is 40 mm and;
d. Be maintained for a minimum distance of 3 mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50 mm upstream of a plane passing through the most upstream extremities of the wheel blades (see Appendix B drawing 254-4).
e. This diameter must be complied with, regardless of the temperature conditions. The external diameter of the restrictor at its narrowest point must be less than 46 mm, and must be maintained over a distance of 5 mm to each side. The mounting of the restrictor onto the turbocharger must be carried out in such a way that two screws have to be entirely removed from the body of the compressor, or from the restrictor, in order to detach the restrictor from the compressor. Attachment by means of a needle screw is not

authorized. For the installation of this restrictor, it is permitted to remove material from the compressor housing, and to add it, for the sole purpose of attaching the restrictor onto the compressor housing. The heads of the screws must be pierced so that they can be sealed. The restrictor must be made from a single material and may be pierced solely for the purpose of mounting and sealing, which must be carried out between the mounting screws, between the restrictor (or the restrictor/compressor housing attachment), the compressor housing (or the housing/flange attachment) and the turbine housing (or the housing/flange attachment) (see Appendix B drawing 254-4). In case of an engine with two parallel compressors, each compressor must be limited to a maximum intake diameter of 28.6 mm. - Diesel engine: For vehicles with Diesel engines, the restrictor must have a maximum internal diameter of 43 mm and an external diameter of 49 mm, in the conditions set out above.

3.2.1.4 Authorized Modifications

a. Except for (b) and (c) Article3.2.1.7 below, the modification, reinforcement, substitution, addition or deletion of parts and components is permitted without restriction, provided the vehicle complies with the safety and general regulations.
b. Exterior pieces (i.e., all components licked by the air stream) must be visually similar to the original item, including bumpers. Except for doors and roofs, bolt-on body pieces may be constructed of an alternate material. The A and B pillars must remain original. The original floor pan and firewall must remain and may be modified only to the extent necessary to accommodate allowed alternate components. Roof mounted, commercially available cooling vents are allowed.
c. Fenders modifications are allowed for the benefit of tire clearance. The tires must be contained in the bodywork when viewed above the car in a 90-degree perpendicular angle to the ground.

3.2.1.5 Weight

a. The weight limit of the car is determined by the class and adjusted displacement.

	Weight Limit, in pounds	
Adjusted Displacement in cm^3	Prototype 1	Prototype 2
Up to 1000	2700	1585
over 1000 and up to 1150	2700	1735
over 1150 and up to 1400	2700	1850
over 1400 and up to 1600	2700	2025
over 1600 and up to 2000	2700	2200
over 2000 and up to 2500	2700	2375
over 2500 and up to 3000	2700	2530
over 3000 and up to 3500	2700	2700
over 3500 and up to 4000	2700	2885
over 4000 and up to 4500	2700	3080
over 4500 and up to 5000	2700	3300
over 4000 and up to 5500	2700	3500
over 5500 and up	2700	3700

b. This is the real weight of the car, without fuel, driver, co-driver and their personal equipment.
c. If the weight is disputed during weighing then all the driver and co-driver equipment, including helmets shall be removed.
d. All external headphones, tools, spare parts, tires and wheels will remain in the car during weighing.

e. The car may not, at anytime during the event, weigh less than the absolute minimum real weight as stated in (A) above.
f. Securely fixed ballast may be used to realize the absolute minimum real weight of the car.

3.2.1.6 Electronic Controls

a. If the original vehicle is fitted with a differential controlled by an electronic system, the electronic control unit is free, but must be entirely interchangeable with the original unit (i.e. the differential must work when the unit is replaced with the series unit). Sensors and actuators on the input side must be standard, as must their function. No sensor may be added, even for the purpose of data recording. The electrical harness must not be modified.
b. Electronic control of the suspension, steering, braking, and gear change/clutch, front and rear differentials are expressly prohibited.
c. Sequential transmissions are prohibited with the exception of automatic transmissions available as the vehicle is sold from dealer.

3.2.1.7 Homologated Component Use

Any vehicle (except FIA Group N4) may use FIA homologated components in an unmodified form if such components are not in violation of 3.2.1.6 above.

3.2.2 Group N (FIA Group N4, 2 liter 4WD supercharged)

3.2.2.1 Homologation

a. Series production touring cars which comply with the FIA regulations for Group N, and comply with Appendix J, Article 252, 253 and 254 of the FIA technical regulations, and the homologation paper(s) specified on the entry form for that particular vehicle with the exception of chassis numbers, which shall not be required to comply with the homologation papers for the purposes of establishing class legality. Any chassis with a non-homologated chassis number(s) must comply fully with all elements of the homologation papers regarding the chassis for the purpose of establishing class legality. Any additional deviations from the homologation papers aside from chassis numbers are not permitted. Compliance with homologation papers shall be determined based on interpretations of those papers in accordance with the FIA standards and regulations.
b. Expiration of FIA Homologation will be extended by four years.
c. Homologation Papers: It is the entrant's responsibility to present correct vehicle homologation papers at scrutineering to substantiate the eligibility of the vehicle and its components.

3.2.2.2 Safety Regulations for Homologated Group N4

Safety regulations are as per FIA regulations.

3.2.3 Modified Classes

Modified Class consists of modified two wheel drive cars. The class is split into two sub-classes:

a. **Modified 1**: two wheel drive with adjusted displacement over 2400 cm^3
b. **Modified 2**: two wheel drive with adjusted displacement equal or less than 2400 cm^3

3.2.3.1 Definition

a. Vehicles must be 2-wheel drive, normally aspirated models sold globally in minimum quantities of 1000.
b. Drive configuration must remain as originally manufactured (e.g. front engine, front drive).

3.2.3.2 Engine

a. The engine, although unrestricted, must be manufactured by the same parent company as the vehicle manufacturer.
b. Class Limitations

	Modified 1	Modified 2
Superchargers	Allowed	N/A
NSU Wankel patents (Mazda rotary)	Allowed	N/A
Adjusted displacement less than	5100 cm^3	2400 cm^3
Adjusted displacement at least	2400 cm^3	N/A

c. Adjusted Engine Displacement

Adjusted engine displacement is calculated by multiplying the absolute displacement by the multipliers listed below:

	Modified 1	Modified 2
Rotary	1.8	N/A
Supercharged	1.7	N/A
Four or more valves per cylinder	1.2	1.2
Three valves per cylinder	1.1	1.1
Two valves per cylinder	1.0	1.0
Pushrod	0.8	0.8
Diesel	0.8	0.8

All supercharged engines will be considered to have two valves per cylinder.

3.2.3.3 Authorized Modifications

a. Modification, reinforcement, substitution, addition or deletion of parts and components is permitted without restriction, provided the vehicle complies with the safety and general regulations.
b. Exterior pieces (i.e.: all components licked by the air stream) must be visually similar to the original item, including bumpers. Except for doors and roofs, bolt-on body pieces may be constructed of an alternate material. A and B pillars must remain original. The original floor pan and firewall must remain and may be modified only to the extent necessary to accommodate allowed alternate components. Roof mounted, commercially available cooling vents are allowed.
c. Fenders modifications are allowed for the benefit of tire clearance. The tires must be contained in the bodywork when viewed above the car in a 90-degree perpendicular angle to the ground.
d. Brakes, carburetor/injection, transmission, suspension, cooling, final drive ratio and type, clutch, pressure plate and flywheel are unrestricted.
e. Wheel diameter and width are unrestricted.

3.2.4 Stock Classes

Stock Class consists of essentially showroom stock cars. The class is split into two sub-classes:

a. **Super Stock**: adjusted displacement over 2650 cm^3

b. **Stock**: non-supercharged, with adjusted displacement equal or less than 2650 cm^3

3.2.4.1 Definition

a. Sedans, station wagons, sports cars and light trucks, available from manufactures listed in National Dealers Association "Car Guide", with limited modifications in order to make them more suitable for competition with respect to safety and reliability only.
b. There must have been a minimum of 1000 units of the specific make and model and of a specific model year commercially available in the United States. Commercially available shall be interpreted as meaning that the general public is able to obtain a price and reasonable delivery date for the specific make and model.

3.2.4.2 Engine

a. Engine Limitations

	Super Stock	Stock
Superchargers	Allowed	N/Ad
NSU Wankel patents (Mazda rotary)	Allowed	Allowed
Adjusted displacement less than	Unlimited	2650 cm^3
Adjusted displacement at least	2650 cm^3	0 cm^3

b. Adjusted Engine Displacement

Adjusted engine displacement is calculated by multiplying the absolute displacement by the multipliers listed below:

	Super Stock	Stock
Rotary	1.8	1.8
Supercharged	1.7	Not allowed
Four wheel drive	1.3	1.3
Four or more valves per cylinder	1.2	1.2
Three valves per cylinder	1.1	1.1
Two valves per cylinder	1.0	1.0
Pushrod	0.8	0.8
Diesel	0.8	0.8

3.2.4.3 Supercharger Restrictions For Super Stock Class

a. Turbocharger and supercharger units must remain as supplied by the vehicle manufacturer on that model.
b. Intercoolers may in no way be modified, moved or added.
c. All supercharged cars must be fitted with a restrictor fixed to the compressor housing unless the compressor air inlet internal diameter is equal to or smaller then the required restrictor internal diameter.
d. If a restrictor is required by (i) above then all air necessary for feeding the engine must pass through this restrictor but in all cases must respect the following:
e. The maximum internal diameter of the restrictor is 32 mm and;
f. Be maintained for a minimum distance of 3 mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50 mm upstream of a plane passing through the most upstream extremities of the wheel blades (see Appendix B drawing 254-4).
g. This diameter must be complied with, regardless of the temperature conditions. The external diameter of the restrictor at its narrowest point must be less than 38 mm, and must be maintained over a

distance of 5 mm to each side. The mounting of the restrictor onto the turbocharger must be carried out in such a way that two screws have to be entirely removed from the body of the compressor, or from the restrictor, in order to detach the restrictor from the compressor. Attachment by means of a needle screw is not authorized. For the installation of this restrictor, it is permitted to remove material from the compressor housing, and to add it, for the sole purpose of attaching the restrictor onto the compressor housing. The heads of the screws must be pierced so that they can be sealed. The restrictor must be made from a single material and may be pierced solely for the purpose of mounting and sealing, which must be carried out between the mounting screws, between the restrictor (or the restrictor/compressor housing attachment), the compressor housing (or the housing/flange attachment) and the turbine housing (or the housing/flange attachment) (see Appendix B drawing 254-4). In case of an engine with two parallel compressors, each compressor must be limited to a maximum intake diameter of 22.6 mm. - Diesel engine: For vehicles with Diesel engines, the restrictor must have a maximum internal diameter of 35 mm and an external diameter of 41 mm, in the conditions set out above.

3.2.4.4 Original equipment

a. Original equipment is as defined in Article 3.1.3.1.F
b. No updating or backdating of cars, models and/or components is permitted.
c. Except where the removal, replacement or modification is authorized under these regulations, all original components and equipment installed by the vehicle's manufacturer shall be present and functioning as specified for the particular bodywork variant.
d. If an optional mechanical component is fitted to a vehicle and that component is only offered by the manufacturer in conjunction with other components, then all such components must be fitted, except where deletion of any of the components is authorized under these regulations.
e. It is the entrant's responsibility to provide manufacturer's documentation such as sales brochures, workshop manuals, service bulletins, etc., where necessary to substantiate the eligibility of the vehicle and its components.

3.2.4.5 Minimum weight

The minimum weight of a vehicle shall be that listed by the manufacture as the curb or shipping weight

3.2.4.6 Normal work and repair

Except where authorized in these Regulations, the only work permitted is the normal maintenance or replacement of parts damaged through accident or wear. Except where specifically authorized, all parts must be identical to the original part and repairs must be according to the manufacturer's accepted service instructions.

3.2.4.7 Authorized Modifications

All items, which are not specifically allowed or referred to as “free” below, must be of original manufacturer's specification. Minor changes (such as a hole in the fire wall, etc) resulting from authorized modifications are permissible

It is the entrant's responsibility to provide specification documents, where necessary, to substantiate the eligibility of all components, which are added under the following, authorized modifications and might have an influence on

performance. The specification documents must demonstrate both function and capability of the component.

a. Lighting Devices
   Additional lighting is permitted, but must conform to Article 3.2.1.2
b. Cooling System
   If, for the same vehicle model, radiators of different capacities are normally offered, they may be used. The addition of a radiator screen is authorized. The make and type of thermostat are free. A single oil cooler and necessary fittings may be added.
c. Induction
   Changes may not be made to the carburetion system or fuel injection system as sold by the vehicle manufacture. Changes may be made to the fuel delivery systems, which controls the amount of fuel available to the induction system. No changes may be made to part of the system, which control the volume of air. Such alterations must not allow any additional air to be inducted to the engine (i.e., the removal of a vacuum hose from the air cleaner housing requires capping off the hole in the air cleaner housing). The air filter housing may not be modified with the exception of the inlet side of the air filter housing, which may be modified or moved. The air filter is free except that it must have the same general dimensions as the original air filter and must fit within the original air filter housing. All air entering the engine must pass through the air filter.
d. Exhaust
   The exhaust system is free, except that the stock exhaust manifold(s) must be retained. The pipe(s) must exit behind the driver and external to the body. A functioning catalytic converter must be present in the exhaust system.
e. Electrical Equipment
   The original equipment alternator and the battery may be replaced, provided the location remains unchanged, and provided they are commercially available units of equal or larger capacity. The manufacture of the battery and alternator are unrestricted.
f. Transmissions
   Any transmission normally installed by the manufacturer in the same model may be used.
   Differentials, if for the same model different final drive ratios are normally offered and installed by the manufacturer, they may be used. The use of "locked" and “limited slip “differential units are allowed.
g. Shock Absorbers
   Shock absorbers are free, provided that their number, their type (telescopic, arm, etc.), their working principle (hydraulic, friction, mixed, etc.), and their attachment location remain unchanged. Shock absorbers attachment points may be enforced. The damper tanks may be attached onto the unmodified shell of the cars. If the shock absorbers have separate fluid reserves located in the cockpit, or in the truck if this is not separated from the cockpit, these must be strongly fixed and must have a protection. A silent block may be replaced by a "Uniball" joint, but only on condition that the shock absorber has no guiding function. Gas filled dampers, regarding their working principle, will be considered as hydraulic dampers. If, in order to change the damping element of a MacPherson suspension, or a suspension operating in an identical manner, it is necessary to replace the entire MacPherson strut, the replacement parts must be mechanically equivalent to the original ones and have the same mounting points. For McPherson suspensions, the shape of the spring seats is free. The material of the spring seats is free.
h. Suspension

The reinforcing of the structural parts of the suspension (with the exception of anti-roll bars) and its anchorage points by the addition of material is allowed. Braces of the strut towers are allowed provided no alterations are made to the induction system or air filtration system. The suspension reinforcements must not create hollow sections and must not allow two separate parts to be joined together to form one. The spring seats may be adjustable if the adjustable structural part is a part of the spring seat and is separated from the original suspension parts/bodywork (it may be removed). The freedoms in spring length do not authorize a reduction in the ride height below the limit in the official factory shop manual. The length of the coil springs is free, as is the number of coils, the wire diameter, the type of spring (progressive or not), the external diameter and the form of the spring seats. The length, width, thickness and vertical curvature of the leaf springs are free. The diameter of the torsion bars is free. Stock anti-roll bars may be removed or replaced. The reinforcing of the structural parts of the suspension (with the exception of anti-roll bars) and its anchorage points by additional material is allowed. The roll cage may be used to brace the vehicle's suspension.

i. Brakes
Brake linings are free, as well as their mountings (riveted, bonded, etc.) provided that the contact surface of the brakes is not increased. Protection plates may be removed or bent. In the case of a car fitted with servo-assisted brakes, this device may be disconnected and removed. The anti-lock braking system (ABS) may be disabled but it may not be removed. Brake lines may be changed for aviation type lines and rerouted. A device for scraping away the mud, which collects on the brake, discs or the wheels, may be added.

j. Clutch and Pressure Plate with Flywheel
Clutch and Pressure Plate: The disc is free, including the weight, with the exception of the number. The diameter of the clutch disc may be increased. The flywheel must be made of the same material as offered from the vehicle manufacturer and must meet the manufactures minimum specifications for weight.

k. Fuel Cells and Fuel Lines
It is permitted to replace the original fuel tank with an approved fuel cell. If a fuel cell is installed its location is free but its fitment must be per Article 3.6.11.2. The maximum capacity of the fuel cell must be less than the capacity of the stock fuel tank but may not exceed 25 gallons. Fuel lines may be rerouted provided they conform to Article 3.6.11.4.

l. Motor Mounts
Free provided the stock location is maintained for the mounting for the engine and transmission. The location of the engine and transmission may not be affected.

m. Engine
Over boring for the use of oversize pistons is prohibited

n. Additional accessories
All accessories, which have no influence on the car's behavior, for example equipment that improves the aesthetics or comfort of the car interior (lighting, heating, radio, etc.), are allowed without restriction. In no case may these accessories increase the engine power or influence the steering, transmission, brakes, or road holding, even in an indirect fashion. All controls must retain the role laid down for them by the manufacturer. They may be adapted to facilitate their use and accessibility, for example a longer handbrake lever, an additional flange on the brake pedal, etc.
The following are allowed:
    a) Fasteners and their locking mechanism are free.

b) Measuring instruments such as speedometers etc. may be installed or replaced, and possibly could have different functions. Such installations must not involve any risk. However, the speedometer may not be removed.
c) The horn button may be changed and/or an additional one added, within reach of the passenger. The horn is not compulsory on closed venue events.
d) Additional electrical relays, switches, wiring, fuses and circuit breakers may be installed.
e) Engine throttle cables may be replaced. The manufacture is free.
f) The steering wheel is free. The locking system of the anti-theft steering lock may be rendered inoperative. A quick release mechanism, if installed, must consist of a flange concentric to the steering wheel axis, colored yellow through anodizing or any other durable yellow coating, and installed on the steering column behind the steering wheel. Pulling the flange along the steering wheel axis must operate the release.
g) Additional compartments may be added to the glove compartment.
h) Additional pockets in the doors provided that they use the original panels.
i) The luggage compartment may be modified to allow the safe installation of equipment, toolbox, and additional spare wheels.
j) Cruise Control systems may be rendered inoperative.
k) Anti-theft systems may be rendered inoperative.
l) Insulating material may be added to the existing bulkheads to protect the passengers from fire.
m) Removal of standard radio/stereo systems is permitted
n) Exterior Bodywork
    1. Hubcaps must be removed.
    2. Protective headlight covers may be fitted provided that their only function is to cover the glass and they have no influence on the car's aerodynamics.
    3. The fitting of underbody protections is authorized provided that these really are protections which respect the ground clearance, which are removable and which are designed exclusively and specifically in order to protect the following parts: engine, radiator, suspension, gearbox, tank, transmission, steering, exhaust, extinguisher bottles.
    4. Any locking system may be used for the cap of the petrol tank.
    5. The changing of the front and rear windscreen wiper blades is authorized.
    6. In case of damage, all transparent parts must be replaced by identical original equipment parts
o) Interior Bodywork
    1. The front seats may be moved backwards but not beyond the vertical plane defined by the front edge of the original rear seat.
    2. The rear seat may be removed.
    3. The dashboard and the central console must remain original.
    4. Side, roof, pillar, door and rear moldings may be removed or modified. Interior lighting may be removed or modified
    5. It is permitted to replace electric window winders with manual ones.

6. Floor Carpets are free and may thus be removed.
7. The original heating equipment must be retained. The air conditioning system may be removed provided if certain elements are common with the heating system they must be retained.

o. Chassis
Seam welding the bodywork is permitted.

p. Non-durable parts
All normally non-durable parts (oil filters, air filters, spark plugs, fan belts, etc.) must be replaced with others of equivalent OEM specifications. The heat range of spark plugs is free.

q. Manufacturer's Specifications
Any machining for adjustment must meet the manufacturer's specification including those for tolerances.

3.2.4.8 Evo VIII and STi alternative brakes

For Super Stock class the following cars may install alternative brake rotors, calipers, and mounting brackets per the following part numbers:

Mitsubishi Lancer Evo VIII

Rotor:	**TBA**
Caliper:	**TBA**
Mounting bracket:	**TBA**

Subaru Impreza WRX Sti

Rotor:	**TBA**
Caliper:	**TBA**
Mounting bracket:	**TBA**

3.2.4.9 STi alternative Supercharger Restrictions

TBA

3.3 Vehicles Prepared to Technical Regulations of Other Sanctioning Bodies

Vehicles prepared to Federation Internationale de L'Automobile (FIA), Sports Car Club of America (SCCA), Canadian Association of Rally Sport (C.A.R.S.), or Federación de Automovilismo Deportivo (F.A.M.D.) technical regulations will be allowed to compete in NASA Rally Sport Events.

3.3.1 Documentation

Vehicles competing under alternate technical regulations must bring printed copies of those regulations, in their entirety, to the vehicle's technical inspection.

3.3.2 Compliance

Vehicles competing under alternate technical regulations must completely comply with all of these regulations including restrictor sizes, minimum weights, required safety equipment and all vehicle preparation rules.

3.4 Pre-event Technical Inspection

Each competing vehicle must pass a detailed technical inspection that will insure all required safety equipment and modifications are present and functional.

Vehicles will also be inspected for overall roadworthiness and mechanical condition and compliance with all rules.

Any vehicle failing to meet all technical and safety requirements will be submitted for official review.

Any vehicle deemed unsafe for competition will be barred from the event.

Each vehicle must be presented in a neat and clean condition free of oil or fluid leaks.

Each vehicle must be presented with all required identification and any advertising decals as required by the event supplemental regulations.

Each vehicle must have the following equipment in full functional condition:

a. Headlights with high and low beams;
b. Parking lights, taillights, brake lights, front and rear turn signals;
c. Horn, windshield wipers, windshield washer;
d. Inside rearview mirror and side mirror(s);
e. Foot brake and parking brake;
f. Tires of at least 2/32 minimums tread depth;
g. Mud flaps on all driven wheels and rear wheels;
h. Exhaust system, leak free and exiting at the rear of the vehicle; and
i. Engine sound suppression system which does not exceed 86db at any time, when measured 50 feet from the vehicle.

If the vehicle is equipped with a sunroof or roof panel, it must be metal and fixed in a closed position.

3.5 Tires

a. The use of tires with metal or plastic studs is prohibited.
b. The use of any device for maintaining the performance of the tire with an internal pressure equal to or less than the atmospheric pressure is forbidden. The interior of the tire (space between the rim and internal part of the tire) must be filled only with air.

3.6 Safety Requirements

3.6.1 Road Worthiness

All competing vehicles must be roadworthy and, the following items in particular must be adequate and functioning properly: (a) All brakes; (b) Horn; (c) Windshield wipers; (d) All legally required exterior lights; (e) Tires, including all spares; and (f) Exhaust system.

3.6.2 Roll Over Protection

Specific roll over protection is subject to the approval of the Scrutineer at each event. Roll cages are mandatory for all vehicles. FIA approved roll cages with sidebars, either weld-in or bolt in is recommended. Non-FIA approved roll cages are recommended to be built to FIA specifications, as set forth in Appendix J to the International Sporting Code, Article 253, or may be built to the following specifications:

3.6.2.1 Definitions

3.6.2.1.1 Safety Cage

A structural framework designed to prevent serious body shell deformation in the case of a collision or of a car turning over.

3.6.2.1.2 Rollbar

Means a structural frame or hoop with mounting points.

3.6.2.1.3 Roll cage

Structural framework made up of a main rollbar and a front rollbar (or of two lateral rollbars), their connecting members, one diagonal member, backstays and mounting points. (For example, see drawings 253-3 and 253-4 in Appendix B).

3.6.2.1.4 Main Rollbar

Means a structure consisting of a near-vertical frame or hoop located across the vehicle just behind the front seats.

3.6.2.1.5 Front Rollbar

Similar to main rollbar but its shape follows the windscreen pillars and top screen edge.

3.6.2.1.6 Lateral Rollbar

Structure consisting of a near-vertical frame or hoop located along the right or left side of the vehicle. The rear legs of a lateral rollbar must be just behind the front seats. The front leg must be against the screen pillar and the door pillar such that it does not unduly impede the entry or exit of driver and co-driver.

3.6.2.1.7 Longitudinal Member

Longitudinal tube which is not a part of the main, front or lateral rollbar and linking them, together with the backstays.

3.6.2.1.8 Diagonal Member

Means a transverse tube between a top corner of the main rollbar or upper end of a backstay and a lower mounting point on the other side of the rollbar of backstay.

3.6.2.1.9 Framework Reinforcement

Reinforcing member fixed to the roll cage to improve its structural efficiency.

3.6.2.1.10 Reinforcement Plate

Metal plate fixed to the body shell or chassis structure under a rollbar mounting foot to spread load into the structure.

3.6.2.1.11 Mounting Foot

Plate welded to a rollbar tube to permit its bolting or welding to the body shell or chassis structure, usually onto a reinforcement plate.

3.6.2.1.12 Removable Members

Structural members of a safety cage which must be able to be removed.

3.6.2.2 Specifications

3.6.2.2.1 General Comments

3.6.2.2.1.1 Preliminary Requirements

Safety cage must be designed and made so that, when correctly installed, they substantially reduce body shell deformation and so reduce the risk of injury to occupants.

The essential features of safety cages are sound construction, designed to suit the particular vehicle, adequate mountings and a close fit to the body shell.

Tubes must not carry fluids.

The safety cage must not unduly impede the entry or exit of the driver and co-driver.

Members may intrude into the occupant's space in passing through the dashboard and front side-trim, as well as through the rear side-trim and rear seats.

Longitudinally, the safety cage must be entirely contained between the mounting points of the front and rear suspension elements carrying the vertical loads (springs and shock absorbers).

Supplementary reinforcements exceeding these limits are authorized between the safety cage and the anchorage points of the rear anti-roll bars on the body shell.

Each of these anchorage points may be connected to the safety cage by a single tube with dimensions of 1 inch x .065 inch.

Any modifications to a homologated safety cage is forbidden

3.6.2.2.1.2 Basic Safety Cage

Only roll cages must be used.

3.6.2.2.1.3 Diagonal Member

The fitting of at least one diagonal member, according to drawing 253-4, is required.

At least a second single diagonal member is required to be fitted. For different ways of fitting the diagonal member, see drawings 253-3 to 253-5. The combination of several members is permitted according to drawings 253-4 and 253-5.

They must be straight, not curved.

A gusset must reinforce the connection between the two members.

The attachment points of the diagonal members must be so located that they cannot cause injuries.

The lower end of the diagonal must join the main rollbar of backstay not further than 4 inches from the mounting foot.

The upper end must join the main rollbar not further than 4 inches from the junction of the backstay joint, or the backstay not more than 4 inches from its junction with the main rollbar.

Diagonal members fixed to the body shell must have reinforcement plates.

3.6.2.2.1.4 Optional Reinforcing Members

Each type of reinforcement (drawings 253-6 to 253-17, 253-17A and 253-17C) may be used separately or combined with others.

3.6.2.2.2 Technical Specifications

3.6.2.2.2.1 Main, Front and Lateral Rollbars

These frames or hoops must be made in one piece without joints.

Their construction must be smooth and even, without ripples or cracks.

The vertical part of the main rollbar must be as straight as possible and as close as possible to the interior contour of the body shell.

The front leg of a front rollbar or of a lateral rollbar must be straight, or if it is not possible, must follow the windscreen pillars and have only one bend with its lower vertical part.

Where a main rollbar forms the rear legs of a lateral rollbar (drawing 253-4), the connection to the lateral rollbar must be at roof level.

To achieve an efficient mounting to the body shell, the original interior trim may be modified around the safety cages and their mountings by cutting it away or by distorting it. However, this modification does not permit the removal of complete parts of upholstery or trim.

Where necessary, the fuse box may be moved to enable a roll cage to be fitted.

3.6.2.2.2.2 Mounting of Roll cages to the Body shell

Minimum mountings are: (a) 1 for each leg of the main or lateral rollbar; (b) 1 for each of the front rollbar; and (c) 1 for each backstay (see 3.6.2.2.2.3).

Each mounting foot of the front, main and lateral rollbars must include a reinforcement plate at least $1/8^{th}$ inch thick, which must not be less than the thickness of the tube onto which it is welded.

Each mounting foot must be attached by at least three bolts on a steel reinforcement plate at least $1/8^{th}$ inch thick and of at least 18 square inches in area which is welded to the body shell. In the alternative, roll cage tubing may be welded directly to the reinforcement plate.

Examples are shown in drawings 253-18 to 253-24.

This does not necessarily apply to backstays (see below).

Bolts must be of at least M8 or $5/16^{th}$ inch size of ISO Standard 8.8 or Metric Standard 10.9 or better.

Fasteners must be self-locking of fitted with lock washers.

These are minimum requirements. In addition to these requirements, more fasteners may be used, the rollbar legs may be welded to reinforcement plates, and the roll cage may be welded to the body shell.

Rollbar mounting feet must not be welded directly to the body shell without a reinforcement plate.

3.6.2.2.2.3 Backstays

These are compulsory and must be attached near the roofline and near the top outer bends of the main rollbar on both sides of the car.

They must make an angle of at least 30° with the vertical, must run rearwards and be straight and as close as possible to the interior side panels of the body shell.

Their materials specification, diameter and thickness must be as defined in 3.6.2.3 and plates must reinforce their mountings.

Each backstay should be secured by bolts of at least M8 or 5/16th inch size of ISO Standard 8.8 or Metric Standard 10.9 or better with identical reinforcement plates of at least 12 square inch area. In the alternative, roll cage tubing may be welded directly to the reinforcement plate.

A single bolt in double shear is permitted, provided it is of adequate section and strength (see drawing 253-26) and provided that a bush is welded into the backstay.

3.6.2.2.2.4 Optional Reinforcement of the Roll cage

The diameter, thickness and material of reinforcements must be as defined in 3.6.2.3.

They shall be either welded in position or installed by means of dismountable joints.

3.6.2.2.2.4.1 Transverse Reinforcing Members

The fitting of two transverse members as shown in drawing 253-7 is permitted.

The transverse member fixed to the front rollbar must not encroach upon the space reserved for the occupants.

It must be placed as high as possible but its lower edge must not be higher than the top of the dashboard.

3.6.2.2.2.4.2 Door Bars

One or more longitudinal members must be fitted at each side of the vehicle (see drawings 253-7, 253-8, 253-12, 253-17).

They may be removable.

Its upper attachment point must not be higher than half the height of the door opening measured from its base.

If these upper attachment points are located in front of or behind the door opening, this height limitation is also valid for the corresponding intersection of the strut and the door opening.

In the case of door bars in the form of an “X” (cross-struts), it is recommended that the lower attachment points of the cross-struts be fixed directly onto the longitudinal member and that at least one part of the “X” be a single-piece bar.

3.6.2.2.2.4.3 Roof Reinforcement

Reinforcing the upper part of the roll cage by adding members as shown in drawings 253-9 and 253-9A is permitted.

3.6.2.2.2.4.4 Reinforcement of Bends and Junctions

It is permitted to reinforce the junction of the main rollbar or the front rollbar with the longitudinal struts (drawings 253-10 and 253-16), as well as the top rear bends of the lateral rollbars and the junction between the main rollbar and the backstays.

The ends of these reinforcing tubes must not be more than half way down or along the members to which they are attached, except for those of the junction of the front rollbar, which may join the junction of the door strut/front rollbar.

Reinforcement as in drawing 253-17B may be added on each side of the front rollbar between the upper corner of the windscreen and the base of this rollbar.

3.6.2.2.2.5 Protective Padding

Where the occupants' bodies and helmets could come into contact with the safety cage, non-flammable padding must be provided for protection.

3.6.2.2.2.6 Removable Members

Should removable members be used in the construction of a roll cage, the dismountable joints used must comply with a type approved by the FIA. They must not be welded.

The screws and bolts must be of ISO standard 8.8 or Metric 12.9 standard or better.

It should be noted that dismountable joints must not be used as part of a main, front or lateral rollbar because they act as hinges in the principal structure and allow deformation.

Their use is solely for attaching members to the rollbars and for attaching a lateral rollbar to a main rollbar (drawing 253-4).

3.6.2.2.2.7 Guidance on Welding

All welding must be of the highest possible quality with full penetration and preferably using a gas-shielded arc.

They must be carried out along the whole perimeter of the tube.

The external appearance of a good weld does not necessarily guarantee its quality.

When using head-treated steel the special instructions of the manufacturers must be followed (special electrodes, gas protected welding).

It must be emphasized that the use of heat-treated or high carbon steels may cause problems and that bad fabrication may result in a decrease in strength (caused by brittle heat-affected zones), inadequate ductility and internal stress.

3.6.2.3 Material Specifications

Material: All cages shall be constructed of SAE 4125 tubing, SAE 4130 tubing, or cold drawn seamless DOM unalloyed carbon steel tubing containing a maximum of 0.3% of carbon and with a maximum content of additives of 1% for manganese and 0.5% for other elements. It is recommended that mild steel be used.

The *minimum* size of tubing to be used shall be as follows:

Dimension (in)	Dimension (mm)	Use
1.5” x 0.120” or 1.75" x 0.095" or 1.98" x 0.080"	38 x 3.0 or 45 x 2.5 or 50 x 2.0	Main rollbar (drawing 253-39) and either front rollbar or lateral rollbars, according to construction, and their connections (drawing 253-40)
1.5” x 0.095” or 1.58" x 0.080"	38 x 2.5 or 40 x 2.0	Other parts of the safety cage.

3.6.3 Safety Harness

3.6.3.1 Generally

Five or six point safety harness of unmodified proprietary manufacture shall be fitted for both members of the crews. (Note: It is not permitted to mix parts of seat belts. Only complete sets may be used.) All harnesses shall be of current FIA or SFI specification. All safety harness systems must either have a date of manufacture label or stamp that is no older than five years from the date of competition, or not exceed the expiration date indicated on the manufacturer’s label.

3.6.3.2 Condition

The material of all straps shall be in new or perfect condition. The belts must be equipped with turnbuckle or push button or lever style release systems.

3.6.3.3 Placement

The lap belt and crotch straps should not pass over the sides of the seat, but through the seat in order to wrap and hold the pelvic region over the greatest possible surface. The lap straps must fit tightly in the bend between the pelvic crest and the upper thigh. Under no circumstances may they be worn over the region of the abdomen.

Holes may be made in the seat if this proves to be necessary in order to avoid such an occurrence. Care must be taken that the straps cannot be damaged through chafing against sharp edges.

3.6.3.4 Anchorage

In all cases, it is most preferable that safety harnesses be installed on the anchorage points of the vehicle. The recommended geometrical locations of the anchorage points are shown in drawing 253-42.

3.6.3.5 Shoulder Harness

The shoulder harness shall be a two-strap over-the-shoulder type. (“H” type configuration is permitted.) In the downwards direction, the shoulder straps must be directed towards the rear and must be installed in such a way that they do not make an angle of more than 45 degrees to the horizontal from the upper rim of the backrest, although it is recommended that this angle should not exceed 10 degrees. The maximum angles in relation to the centerline of the seat are 20 degrees divergent or convergent. (See

diagram 253-42) Anchorage points creating a higher angle to the horizontal must not be used unless the seat meets the requirements of the FIA standard. A safety harness must not be installed on a seat having no head restraint or having a backrest with integrated head restraint (no opening between backrest and head restraint) (If the seat does not provide lateral restraint, the mounting point on the vehicle structure shall be a minimum of 20 inches behind the seat back when measured along the belt.)

3.6.3.6 Safety Wiring

If the manufacturer provides for safety wiring the locking bale or clasp to prevent accidental unfastening of the belts from their anchorage points, then it shall be necessary for the all such components to be safety wired.

3.6.3.7 Hardware

The minimum acceptable size and grade of bolt used in the mounting of all belts and harnesses shall be 7/16 inch UNF, SAE grade 8, or, preferably, M12 8.8. When mounted, the bolts should work in shear and not in tension.

3.6.3.8 Alternate Anchorage

If installation on the series anchorage points is impossible for the shoulder and/or crotch straps, new anchorage points must be installed on the shell or the chassis, as near as possible to the center-line of the rear wheels for the shoulder straps. The shoulder straps may also be fixed to the safety roll cage or to a reinforcement bar by means of a loop, and may also be fixed to the top anchorage points of the rear belts, or be fixed or leaning on a transversal reinforcement welded or bolted to the backstays of the rollbar. In this case, the use of a transversal reinforcement is subject to the following conditions:

3.6.3.8.1 Reinforcement

The transversal reinforcement shall be a tube measuring at least 1.5 inch x .120 inch or 1.6 inch x .095 inch, made from cold drawn seamless carbon steel.

3.6.3.8.2 Placement

The height of this reinforcement must be such that the shoulder straps, towards the rear, are directed downwards with an angle of between 10 degrees and 45 degrees to the horizontal from the rim of the backrest, an angle of 10 degrees being recommended.]

3.6.3.8.3 Attachment

The straps may be attached by looping or by screws, but in the latter case an insert must be welded for each mounting point (see drawings 253-17C and 253-53 for the dimensions). These inserts will be positioned in the reinforcement tube and the straps will be attached to them using bolts of M12 8.8 or 7/16 UNF specification.

3.6.3.8.4 New Anchorage Reinforcement

For each new anchorage point created, a steel reinforcement plate with a surface area of at least 16 square inches and a thickness of at least $1/8^{th}$ inch must be used.

3.6.3.9 Principles of Mounting to the Chassis/Monocoque

3.6.3.9.1 General Mounting System

See drawing 253-43.

3.6.3.9.2 Shoulder Strap Mounting

See drawing 253-44.

3.6.3.9.3 Crotch Strap Mounting

See drawing 253-45.

3.6.3.10 Manufacturer Instructions

A safety harness must be used in its homologation configuration without any modifications or removal of parts, and in conformity with the manufacturer's instructions. The effectiveness and longevity of safety belts are directly related to the manner in which they are installed, used and maintained. The belts must be replaced after every severe 7collision, and whenever the webbing is cut, frayed or weakened due to the actions of chemicals or sunlight. They must also be replaced if metal parts or buckles are bent, deformed or rusted. Any harness, which does not function perfectly, must be replaced.

3.6.4 Fire Extinguishers

3.6.4.1 Number

One fire extinguisher with a minimum UL rating of 10 BC or two, each with a minimum rating of 5 BC, must be installed inside the passenger compartment. During installation, consideration must be given to quick release and security of attachment. One fire extinguisher must be located within easy reach of the Driver or Co-Driver when seated.

3.6.4.2 Extinguishers

It is strongly recommended that Halon or a similar gas be used. If a dry powder unit is used, the unit should be shaken or rapped sharply at frequent intervals to reduce the chance of the powder compacting.

3.6.4.3 Maintenance

Evidence must be produced that the fire extinguisher has been purchased or recharged within the preceding two years.

3.6.4.4 Recommended Systems

It is highly recommended that all vehicles comply with the FIA Appendix J, Article 253.7 (Extinguishers - Extinguishing Systems).

3.6.5 First Aid Kit

A comprehensive first aid kit shall be carried in the passenger compartment. The first aid kit must include: (a) Antiseptic (ointment or liquid); (b) Gauze pads or rolls; (c) Adhesive tape; (d) Arm sling; (e) Safety pins; (f) Scissors; (g) 2 "space" blanket; and (h) First aid manual.

3.6.6 Warning Devices

A minimum of three self-supporting, light-reflecting, daylight-visible triangular warning devices shall be carried in the vehicle. One of which must be located within easy reach of the Driver or Co-Driver when seated.

3.6.7 Batteries

3.6.7.1 Mounting

Batteries must be securely mounted with metal-to-metal mounts.

3.6.7.2 Housing

If removed from the original location, all batteries shall be mounted inside covered, non-conductive boxes.

3.6.7.3 Mounting within Passenger Compartment

If mounted inside the passenger compartment, batteries shall be those that are completely sealed or so designed or modified to prevent acid spillage.

3.6.8 General Circuit Breaker

3.6.8.1 Recommended Use

It is strongly recommended that a spark-proof general circuit breaker with the capability of disconnecting all electrical circuits shall be mounted in the passenger compartment. (Supplementary wiring may protect the integrity of a fuel injection computer.)

3.6.8.2 Location

If a circuit breaker is used, the location of the circuit breaker shall be that which makes it easily operable by either member of the crew or by persons outside the vehicle through either front door.

3.6.8.3 Labeling

If a circuit breaker is used, the location of the circuit breaker shall be marked with a label showing a red spark in a white-edged blue triangle.

3.6.9 Windows

3.6.9.1 Windshield

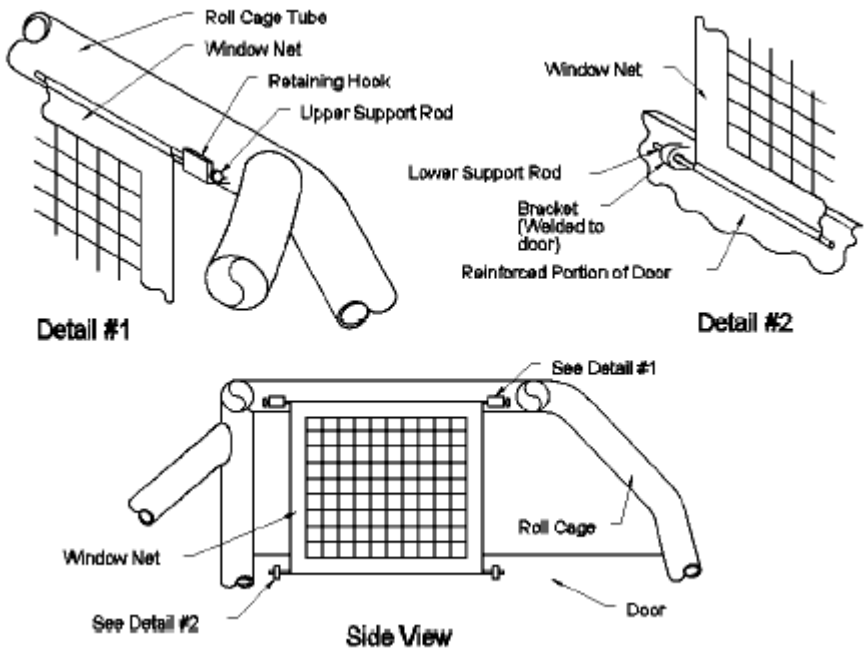
The windshield shall be laminated safety glass.

3.6.9.2 Winders

It is encouraged to replace electric winders with manual ones. In all cases, the competitor must be able to describe to the satisfaction of the event Scrutineer the ability to escape from the car with the doors closed.

3.6.9.3 Use During Events

Windows in the driver and co-driver doors must be rolled-up during special stages. Window safety nets must be used in lieu of having windows rolled-up during special stages. (See illustration for proper window net installation). It is highly recommended that all window nets meet FIA article 253.11. Window nets will be required, regardless of window position, in all competition vehicles in 2005.



3.6.9.4 Window Films

The use of translucent and colorless anti-shatter films on glass side windows is highly recommended. The use of silvered or tinted films is also authorized provided that the openings in these films allow a person outside the car to see the driver as well as the contents of the car.

3.6.9.5 Replacement

In classes where it is permissible to replace glass side windows with Lexan, it should be of equal or greater thickness than the original glass. However, competitors must be able to display to the satisfaction of the event Scrutineer that the mounting of the substitute windows will allow both emergency escape from inside the car and access by rescue from the outside of the car.

3.6.10 Mud Flaps

Mud flaps are required on all rear wheels and driving wheels.

3.6.11 Fuel Tanks and Lines

3.6.11.1 Fuel Tank Bulkhead

A fuel-resistant and fire-retardant plate or shield is required between the passenger compartment and the compartment or area in which the fuel tank is located.

3.6.11.2 Approved Fuel Cells

The original fuel tank may be replaced or supplemented by a fuel cell meeting current FIA specifications, provided that the fuel cell is properly vented to the outside of the vehicle from the compartment in which it is located.

Should the fuel cell and its filler be located in the luggage compartment, an outlet must be provided for fuel spilled in the compartment.

Where fuel cells are installed in the passenger compartment of vehicles such as “hatchback” variants, 8.11.1 above applies if the fuel cell filler is located in the passenger compartment.

3.6.11.3 Supplemental Fuel Tanks

Supplemental fuel tanks are permitted.

3.6.11.4 Rerouting of Lines

If fuel lines are re-routed through the passenger compartment, they shall be in compliance with the following: (a) shall incorporate a metallic casing. (If the metallic casing is not exterior to the line, a verifiable sample must be presented at scrutineering.) And (b) shall have a minimum of 200 psi rating.

If the manufacturer routs fuel lines through the passenger compartment, it is recommended that they be in compliance with this section.

3.6.11.5 Fuel Pump Bulkhead

Fuel pumps shall be isolated from the driver/co-driver by a fireproof metal bulkhead.

3.6.12 Seats

Seats shall be of one piece construction, and shall be firmly mounted to the floor of the vehicle in such a manner as to prevent the movement of the seat in case of an accident. One piece aluminum seats (e.g. Butler Built, Kirkey) shall use a seat back brace per manufacturer's requirements. Use of FIA certified/homologated seats is encouraged. FIA certified/homologated seats will be required in all competition vehicles in 2005.

3.6.13 Towing Eyes

Towing eyes shall be attached to the front and rear of the vehicle and painted in yellow, red or orange.

3.6.14 Loose Articles

All articles, which could be dangerous if left loose, must be securely restrained.

3.6.15 Door Panels

Inside door panels are required to provide protection from metal edges.

3.6.16 Tow Rope

All vehicles must carry a towrope or winch with cable.

3.6.17 Roofs

Movable metal sunroofs and/or roof panels must be fixed in the closed position. Sunroofs and/or roof panels of any other material must be replaced with metal and must be fixed in the closed position. The finished work must be of equal or greater strength than the permanent roof.

3.6.18 Supplemental & Passive Restraints

Airbags and their associated equipment must be disabled or removed during competition in order to eliminate the possibility of the airbag inflating accidentally. It is recommended that passive restraint systems be disabled.

3.6.19 Power Door Locks

For all classes, it is recommended that power door locks be rendered inoperative and replaced with manually operated mechanisms.

3.6.20 Steering Locking Device

For all classes, it is recommended that any steering locking device be rendered inoperative.

3.6.21 Camera and Camera Mounts

Camera mounts and their attachment to the vehicle shall be of a safe and secure design which would prevent either driver from being able to strike any part of the mount. As well, the camera shall be secured at a minimum of two different points and neither attachment may be elastic or plastic.

3.6.22 Helmets

All member of the crews competing in events pursuant to these rules must wear helmets with one of the following ratings: (1) Snell Foundation SA-95 or newer; (2) British Standard 6658-85 Type A/FR, including all amendments; or (3) SFI Spec 31.1 or 31.2.

3.6.23 Suits

All member of the crews competing in stage rally and rally sprint events must wear suits with one of the following ratings: (1) FIA Standard 8856-2000; (2) SFI 3-2A/5; or (3) SFI 3-2A/1 with fire resistant underwear.

3.6.24 Head and Neck Restraint Devices

Use of head and neck restraint devices (e.g. HANS, Hutchens Device) is encouraged.