

2012

# NORTHWEST PRO4 ALLIANCE RULES & PROCEDURES



**2011 NORTHWEST PRO4 ALLIANCE CHAMP**

**EDDIE SECORD**

**The Guidelines** and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These guidelines shall govern the condition of events and participation therein. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE GUIDELINES AND/OR REGULATIONS.**

They are intended as a guide for the conduct of events and are no way a guarantee against injury or death to a participant, spectator, or official. The director of competition, or his authorized designate, shall be empowered to permit minor deviation from any of the guidelines and/or regulations herein, or impose any further restriction which, in his opinion, does not alter the purpose of the organization. Deviation of these guidelines and/or regulations will be the responsibility of the series officials, whose decisions are final.

## **I CONDUCT**

1. Upon admittance to a restricted area, all participants must conduct themselves in a manner not detrimental to stock car racing. Profanity in front of race fans, officials, management, profane signs or writing on cars, etc., will not be tolerated and may subject the offending party to disqualification, suspension, fine, or other penalties.

**UNSPORTSMANLIKE CONDUCT AND/OR CONDUCT DETRIMENTAL TO THE SPORT OF AUTO RACING WILL NOT BE TOLERATED.**

2. General appearance of drivers and crews must be neat and clean looking or they will not be welcome.
3. A competitor may not stop his or her car on the track to argue or discuss an incident with the starter or other officials. Violations will subject the offender to disqualification, suspension, fine, or other penalties.
4. Verbal or physical abuse of officials, including improper language or actions will result in sanctions from the series.
5. Fighting will not be tolerated. Drivers will be held responsible for the conduct of all persons connected with their car, and violations will be dealt with accordingly.  
Any person from a crew, including the driver, going to another pit area where any altercation erupts, will automatically be considered at fault and will be subject to penalties.
6. Any driver who, in the judgment of series officials, engages in rough driving, deliberately running into, blocking or swerving in front of another car - may be subject to disqualification and/or suspension and/or other penalties. Any car intentionally blocking the track will subject the owner and driver to immediate and indefinite suspension from the series.
7. Any driver who intentionally causes a caution condition, without safety being an issue, by stopping or spinning out or any other action, is subject to penalty in the form of lap(s), disqualification, fine, and/or other penalties.

## **II COMPETITION RULES**

### **A. Finishing Positions**

1. Finishing positions will be determined according to the most laps completed in the least time, regardless of whether the car is running.

### **B. Finishing Position Protest**

1. Protests to finishing positions in any race must be made within thirty (30) minutes after the official results are posted. Such protests must be in writing and must be given to the Chief Scorer or Race Director.
2. Scoring re-check decisions are final, and can not be appealed or litigated.

### C. Inspections, Mechanical Protest

1. Series officials may require an inspection of any vehicle at any time. Vehicles placing in the first five positions must present themselves at the inspection station immediately after the conclusion of the feature race for such inspection and must not work on the car in any fashion until told to do so by a technical official.
2. A competitor must take whatever steps are required, including a complete tear down of the car, as requested by series officials to facilitate inspection of the car.
3. Failure to present a car for inspection when requested to do so, or refusal to take steps requested by series officials, will be considered an admission of guilt and will be grounds for disqualification.
4. Protests regarding alleged mechanical infractions must be made prior to the feature race being called to the track for the official lineup. The written protest must specify, in detail, a single, specific part or rule that is in violation, and be given to the Chief Technical Inspector or Race Director, along with a fee of \$300 cash.  
Mechanical inspection with respect to such protest will be made following the feature race. \$100 of the fee will be retained by the series for administrative costs, with the remaining \$200 going to the winner of the protest.
5. A protest may only be filed by a competitor in the same feature race.

### D. Common Technical Rules

1. No traction control devices, electronic or otherwise, will be permitted. Use of traction control will be cause for immediate disqualification and suspension from future racing activities. No driver adjustments other than brakes.
2. No Tungsten or similar weight allowed!

### E. Penalties

1. Penalties for violations of the rules are determined by the gravity of the violation

### F. License Fee

1. In order to compete in any Northwest pro4 Alliance for points or additional awards, drivers must purchase a Northwest Pro4 Alliance registration.

### G. Racing Rules

1. When supplied, teams are required to use uniform patches and car stickers in their designated and mandated position. Failure to do so may result in a minimum penalty of 10% of their purse for that event.
2. Normal Northwest Pro4 Alliance programs will consist of practice, qualifications, dash, heats, a possible last chance race (B Feature), and A feature.
3. Normal procedures call for the fastest twenty (20) cars in qualifications to be automatically transferred to the A feature, to be lined up in order of the inversion drawn by the fast qualifier. Inversion draw can be a minimum of a two (2), up to a maximum of twelve (12) car inversion. Positions 21 - 22 will be the top two finishers from the B feature race. Positions 23-24 will be the two teams highest in series points who have not yet qualified for the feature.
4. In the event that all cars qualifying for the event will make the event, the entire feature line-up will be by qualifications with the inversion.
5. If a promoter agrees to start all cars, above the previously announced number of starters, the field will be set on time and the inversion applied accordingly.
6. A driver may qualify only one (1) car, and a car may be qualified only one (1) time for a race program. If a car is scratched following a successful qualifying attempt, a driver may qualify another car, provided that car has not yet qualified.

7. A driver, with his car, must either practice or qualify, to be eligible to start the feature. The only exception is with prior approval.
8. All driver changes must be reported to a series official prior to the race involved being called to the track. Any driver change within the top twenty prior to start will result in that car starting 20th.
9. Lineups for races and qualifying order will be posted in a conspicuous location. It is the responsibility of the driver to check his or her starting position and be ready to race when called for an event. Cars not ready to race may be placed at the rear of the starting lineup or disqualified from the event.
10. The flagman may start any event whether all cars called are ready or not.
11. Any car that loses a wheel, has a hood come off or open, or is observed dragging dangerous parts, or dropping any fluid, is subject to disqualification at the discretion of the officials.
12. Driver must remain with any disabled car to assist track tow truck crew for removal.
13. Officials may alter the rules or procedures at any time in the interest of fairness and safety.

#### H. Eligible Owners & Point Standings

- 1 In 2012 the Northwest Pro4 Alliance points will go to the registered driver and will be kept for the sole purpose of determining a driver's champion.
2. All teams who enter a car and present it for competition, but fail to make a qualifying attempt will receive 10 points for their participation
3. The top teams from qualifying will receive the following bonus points: Total number of cars entered.  
*Example.* 36 cars entered = 36, 37, 36, 35, down to the last (slowest) 1pt.
4. Points for the feature results will be awarded in the following manner: 1st-100, 2nd-97, 3rd-94, with a 2-point drop per position to last. Dash & Heat races will not pay points. Drivers must start the heat race to keep their starting position in the feature.
7. Any tie in the final point standings of any award will be broke by the highest number of wins, and if still tied, by the highest number of second place finishes, and so on, until the tie is broken.

#### I. Rookie Eligibility

1. Drivers can apply for the rookie program if they have competed in no more than 5 events in one season. Any event where the driver does not complete 50% of the laps will not count towards their total races competed.
2. All rookie drivers must register and be approved by the series director.

#### J. Practice & Testing Guidelines

1. No Northwest Pro4 Alliance team or driver may test at a given facility in the four days preceding a scheduled event, unless it is an officially sanctioned and announced open practice session. The penalty for a violation is that the driver may not start any better than 16th.
2. Inexperienced drivers, as determined by series director, may practice exclusively at any time prior to the event, if they have not raced at the facility before in this rules configuration and the facility is not a new track to the Northwest Pro4 Alliance schedule. This can ONLY be done with PRIOR event specific approval of the Northwest Pro4 series director.

#### K. Number Distribution

1. Teams that wish to reserve a number or start the season with their number from the previous season must purchase a registration prior to January 15th, 2012. After that all numbers will be secured on first come basis with submission of registration fee. No duplicate numbers. After sending in your paid registration you must call the office at 208-440-3873 to confirm your number. Number must be on racecar day of race and be legible. Numbers must be 24 inches high and 3 inches wide on doors and roof. A 6 inch high number must be placed in the upper corner of the windshield on the passenger side.
2. No letter designations allowed

#### **IV OFFICIAL DECISIONS**

1. Any situation not specifically covered in these rules will be acted upon by the official or officials in charge at the time, whose decision will be final and binding on all participants.
2. Any disagreement over technical questions or operations will be resolved by series officials. When their decision is rendered, such decision is final and binding.
3. Continuous developments in racing may necessitate changes which cannot be anticipated at the time rules are formulated. If necessary, rules may be updated, changed, deleted or added to at the discretion of the officials.
4. Officials may use weight penalties for any infractions of these rules in an effort to make a car eligible to compete.
5. At certain events, to encourage participation of local competitors, the officials may alter the rules for those cars to try and create a level playing field for cars that might fall outside of the normal rules. Official's decisions are final.

#### **V SAFETY**

1. Approved seat belts and double shoulder harness will be required, no older than Three (3) years. A crotch strap will be required. Sternum strap recommended.
2. A capable form of head & neck restraint is highly recommended.
3. Helmet must be 2000 Snell standard or better and have sticker visible for Inspection. Full-face helmets required.
4. Clean full driving suit for fire protection will be mandatory, along with approved racing gloves.
5. Side plate for driver's door will be mandatory. Must be 12 inches (12") high post - to- post,
6. Driver's window must be equipped with safety net with quick release-latch. String window nets will not be permitted. When latched, the window net must fit and pull tight.
7. Resilient padding designed for roll bar use must be installed on any roll cage member which can be reached by any extremity of the driver while driver is normally seated with restraints fastened. Steering wheel must be padded.
8. All lead weights must be painted white, with the car number painted on each individual piece and be visible from the top. All lead weights must be securely fastened. No lead weights will be permitted in driver's compartment. Any lost weight will result in a **\$5 per pound fine**.

## **2012 Northwest Pro4 Alliance Rules**

#### **PREFACE**

These rules are in effect for the 2012 NP4A racing season. It is intended that the rules not change during the racing season. However, in the event a rule needs to be changed in order to equalize competition it will be done. Please understand that these engine and carburetion rules were developed in order to enhance competition among many different types of engines. If your team is affected due to the use of high performance equipment and is faced with having to add weight or scale back and set aside some expensive parts, please keep in mind that your willingness to do so will help move the entire Pro-4 concept forward to a brighter and stable future. At the completion of the five-race series, all technical data will be reviewed and a determination made of whether any changes are warranted.

## **DISCLAIMER**

Auto racing by its very nature is a dangerous sport. While every effort has been taken to insure the safety of the drivers, crew, and spectators, this compilation of rules and procedures does in no way imply assumption of responsibility or risk, ultimately, each participant is solely responsible for his or her safety.

## **ALLOWABLE CARS**

1. Any fabricated tube-frame race car, perimeter or offset.
2. No Jeeps, dune buggies, or convertibles.
3. No all wheel drive, (AWD) cars.

## **BODIES**

1. All cars must have complete bodies with no sharp edges; fabricated of nonferrous materials that some what resembles (i.e. front fenders, nose and hood) a late model stock car complete with a nose and tail panel. Outlaw bodies are permitted but must have round edges, a nose that conforms to the fenders. Roof must have rounded edges

## **OUTLAW BODY**



2. All window materials, front, rear, and sides must be of polycarbonate, (Lexan) material. No acrylic, (Plexiglas) material.
3. All bodies must be brightly painted and have numbers on both sides, top, nose and tail.
4. Hood scoop/air cleaner may not be higher than 5 inches.
5. Maximum rear spoiler height is 8 inches measured along the spoiler surface from the spoiler base to the spoiler top edge. Aluminum may be used up to a spoiler height of 5 inches. Polycarbonate, (Lexan) must be used if taller than 5 inches to maximum length.

No acrylic, (Plexiglas) material. Spoiler side panels may not extend past the rear edge of the wheel well.

6. Firewalls, solid panels with no gaps or holes, of 24-gage steel or 0.065" thick aluminum, minimum, required between driver and engine, fuel cell, battery, and radiator. Interior trim panels beyond firewalls may be of steel or aluminum less than minimum thickness required for firewalls.
7. Body wheel wells must cover all four (4) tires.
8. Spoiler side panels may not extend past the rear edge of the wheel well.

### **CHASSIS**

1. All chassis must be constructed of minimum 2 inch square or round by 0.090 inch minimum wall thickness.
2. Rear clip and front clip may be of 1-1/2 inch square or round by 0.090 inch minimum wall thickness.
3. Roll cage must be not less than 1-1/2 inch diameter by 0.090 inch minimum wall thickness.
4. Chassis track width must not exceed 78 inches measured outside -to-outside of the front tires at spindle height with toe-in or toe-out measurements at front of tire and rear of tire averaged.
5. Maximum left side weight is 58% with driver and fuel on board.
6. Chassis wheel base, measured on the left side, is 94 inches minimum and 105 inches maximum.
7. Driver accessible weight adjusters prohibited.
8. Chassis ride height of 3 inch minimum measured at the left front corner w/o driver.



### **WHEELS & TIRES**

1. 13 inch diameter wheels and 15 inch diameter stock car racing wheel of steel or aluminum construction not to exceed 10 inches in width are approved.
2. Hoosier F35 Left and Right from **Steve Thompson/Hoosier Tire West only**.

**ENGINE DISPLACEMENT & WEIGHTS**

- 1. Maximum engine size is 2420cc's, and minimum weight is 1800 pounds/maximum weight 2400 pounds.
- 3. No fuel injection at this time, Super Charger, Turbo Charger, or Nitrous Injection

**WEIGHT RULES**

All modified stock production engines in size from 1800cc to 2420cc

All modified stock production engines ranging in size from 1800cc to 2420cc must weigh .85 lbs per cubic centimeters with 2 or 4 venturies.

All De-stroked engines must weigh 1lbs per cc and add 25lbs if using a Ford D-Port Aluminum head or 50lbs if they use an SVO/ARCA Aluminum head

Cars using the following engine - aftermarket 2300 c.c. Fords must meet these weights

- Ford Cast Iron head .....2000lbs
- Ford D-Port Aluminum cylinder head.....2100lbs
- Ford w/aluminum SVO & ARCA cylinder head.....2200 lbs

Twin Cam sixteen valve engines/ ANY New twin cam engine must meet Alliance approval for racing use

- Chevy 2000/2200 Echo Tech .....2200lbs
- Honda V-Tech 2000/2200.....2200lbs

*As of 2010 the Alliance will no longer allow veritable value timing on twin cam engines that feature this option. The Alliance had some of the best people in the aftermarket provide information that shows this feature can be eliminated at a reasonable cost to the team.*

Rotary Motors

- 1. 12A Stock block must weigh 2000 lbs. 2. 12A Ported block must weigh 2300 lbs.3. 13B Stock block must weigh 2350 lbs.

Please remember that the above weights and other penalties were determined by current performance and if anyone engine combination or team shows it can become dominate action will be taken to even the playing field, please understand that we are not in anyway trying to combat your ingenuity but just trying to keep as many teams as competitive as possible.

### **Fuel Rules**

1. Racing fuel only, No Nitro or nitro mixed additives, VW A/C engines may use alcohol

### **General Rules**

1. Inline 4 cylinder, 4 cycle gas engines produced for use in foreign or domestic automobiles for sale in the United States and Canada
2. Substitution of production cast iron block with aftermarket aluminum block is prohibited. This dose not apply to air cooled VW's
3. Any transmission with 2 forward gears and operable reverse may be used.
4. Any transmission adapter may be used. Tech approval required.
- 5 Cars using open stock style clutch must use scatter shield minimum 180 degrees on driver's side of bell housing; 270 or 360 degrees are recommended. Minimum steel thickness is 3/16 inch. Minimum aluminum thickness is 1/4 inch. Tech approval required.
6. Starter and clutch assembly must be operable.
7. Exhaust must exit behind driver. If it exits out the door you must use a tail pipe protector. You can buy or build.



8. Exhaust noise level shall meet track requirements.

9. Oil cooler, remote oil filter, dry-sump, external drain lines and attachments shall be of proper design and strength to resist bursting or leaking. Tech approval required.
10. Radiators shall remain inside body shell. Cooling fans, engine driven or electrical, must be enclosed within shroud. Tech approval required.
11. Separate overflow containers with 1 quart minimum capacity required for radiator and crankcase/dry sump ventilation system. Crankcase/dry sump overflow container must be metal. Tech approval required.
12. Any rear end including quick change may be used.
13. Suspension type is open. Titanium or magnesium components are prohibited.

### **Roll Cage**

1. Six point roll cage mandatory of 1-1/2 inch minimum diameter x 0.090 inch wall thickness minimum ERW or DOM.
2. Roll bar shall have at least one diagonal brace from top of hoop to bottom.
3. Minimum of 3 horizontal door bars required on driver's side of cage and 2 door bars required on right side of cage. All door bars shall have vertical braces welded between them. Top left door bar may not be lower than 3 inches below driver's window opening. Left door bars must be plated
4. One overhead bar from front to rear in center of the halo that is out of reach of the driver's helmet when driver is strapped in, is required.
5. One vertical (Earnhardt Bar) is recommended from middle of halo hoop front down to cage front hoop at dash level.
6. Two braces from within 6 inches of the top of the main roll bar hoop down to the rear clip are required. Braces are to extend as far back as the body will allow.
7. Energy absorbing padding must be installed on all bars and tubes in driver area where contact maybe made between driver extremities and bars.
8. Minimum of 2 windshield braces must be placed behind windshield. We recommend 3
9. Nerf bars shall be minimum one inch square or one inch diameter round tubing with rounded ends located within body.
10. Bumpers required on front and rear of car inside nose/tail pieces

11. Center of bumper shall be 16 inches from ground plus or minus 2 inch.

### **Battery Boxes**

1. Battery shall not be installed outside of the frame rails.
2. Battery must be separated from driver by a firewall and securely attached to the frame or chassis
3. If battery is installed inside driver compartment, it must be enclosed inside a metal box of 20 gage minimum thickness.

### **Driveline**

1. Aluminum or steel drive shafts permitted. Composite drive shafts are prohibited.
2. Drive shaft must be painted white with car number on it.
3. Two steel; drive shaft containment loops or straps, 0.125" x 1" minimum cross section are required. One at each end of driveline.

### **Brakes**

1. Brakes shall be on all four wheels and operable at all times.
2. Driver adjustable brake biasing mechanisms are approved.

### **Fire Extinguisher**

1. A 2.5 lb. (minimum) carbon dioxide or dry powder, Coast Guard approved, with gage in working order and fully charged extinguisher is required.
2. Extinguisher must be in drivers reach while strapped in car.
3. An on board Halon fire suppression system is recommended, but not required. If installed, minimum one nozzle each in engine bay and driver area. Safety note: Position nozzle and aim it away from driver in direction of anticipated flame sources. Halon can cause frost bite.
4. Fire extinguisher or Halon fire suppression system must be securely mounted in car.
5. Each car must have a 5 lb. minimum fire extinguisher with current inspection tag readily accessible in pit area.

### **Master Electrical Switch**

1. A master electrical shut off switch must be installed within easy reach of the driver and safety crew members to kill the electricity to all electric components in the event of an emergency.
2. If the master shut off switch cannot be located within easy reach of safety personnel, then an additional master shut off switch must be installed in a location accessible to safety personnel.
3. The master shut off switch must be clearly marked.

### **Safety Belts**

1. Seat belts, 3” minimum width, shall have metal connectors and be firmly attached to the roll cage by steel brackets of sufficient strength. Tech approval required.
2. Shoulder harness, 3” minimum width, shall be double straps attached separately to the roll cage by metal brackets that are part of the roll cage. “Y” belt shoulder harness with single point attachment to roll cage is not allowed. Tech approval required.
3. Anti-submarine belt, 2 “minimum width, shall be attached to the seat bracket that is part of the roll cage.
4. All belts expire **3 years** following date of manufacture and must be replaced. (2009)
5. Hutchens, neck collar or similar restraint device is **highly recommended**.

### **Window Net**

1. Safety window net of either mesh or web construction are required in driver’s side window. Must not be over **3 years old** (2009)
2. They must be fastened securely with a quick release type latch that can be activated from either inside or outside the car.

### **Driver Seat**

1. Seats shall be racing type with head rest behind driver’s helmet.
2. Right side head restraint required. Left side head restraint recommended.
3. Seats shall be securely fastened to roll cage in upright position.
4. Seats of fiberglass construction are **not allowed**.

## Fuel Cell

1. Fuel cells are required with 8 gallon minimum and 12 gallon maximum capacity.
2. Bottom of fuel cell must be 6 inches minimum from ground. In 2013 sides' front and rear of fuel cell must be plated.
3. Fuel cell bladder must be enclosed in metal container.
4. Fuel cell metal container shall be mounted securely to chassis with steel tube frame surrounding container and minimum of 2 straps on top.
5. Fuel pump shall **not be** mounted in driver compartment and shall be mounted inside either frame rail.
6. Fuel lines passing through driver compartment must be encased in metal tube or protected by woven stainless steel wire mesh covering on outside of fuel hose.
7. Fuel cell shall be electrically grounded to chassis.
8. Fuel cell filler cap shall be tethered to the fuel cell or fuel cell containment straps with a short length of light gage safety cable or ball chain.
9. Electric fuel pumps must be wired with an oil pressure operated shutoff switch in the electricity supply line. A momentary override switch may be used when starting the motor.

## General Class Rules

Two-way radios are required in 2012 for driver and spotter. Raceceivers set to our race control will also be allowed.



# ***THE SPOTTERS EVOLUTION IN WINNING AND COACHING***

1. *SUCCESS WORDS*
2. *EVOLUTION OF A SPOTTER*
3. *ROLE OF A SPOTTER*
4. *AN ARTICLE FROM THE BRISTOL HERALD COURIER*
5. *TECHNIQUES OF A SPOTTER*

## ***SUCCESS WORDS***

1. *Focus*
  2. *Dedication*
  3. *Commitment*
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## ***EVOLUTION OF A SPOTTER***

***1970*** - *Nascar uses two-way radios for the first time*

***1971*** - *Bobby Allison wins June race at Riverside claiming he was wired for sound (Crew chief only)*

***Mid 1980's*** - *Spotters are utilized by Nascar teams (On top of transporters only)*

***Late 1980's*** - *Spotters mandated by Nascar*

***1990's*** - *Spotters role more defined (Coaching, advising)*

## **ROLE OF A SPOTTER**

***The role of a spotter is to:***

- Keep the driver safe*
  - Protect the equipment*
  - Coach the driver*
  - Assist in race strategy*
  - Bring the car to the best possible finish*
  - The team and team leadership need to identify the role of a spotter as a serious position that can help the team consistently win !!*
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### ***AN ARTICLE FROM THE BRISTOL HERALD COURIER***

*'Bristol is absolutely the hardest place to spot, bar none.'*

*--Ty Norris*

*spotter for Winston Cup regular Steve Park*

### ***Extra eyes crucial at BMS***

***By Allen Gregory***

***Bristol Herald Courier***

*The role of a spotter is one of the most important and most underrated jobs in NASCAR. Often, the spotter can save his driver from disaster or set him up for a fantastic finish. The extra eyes of a spotter are vital at Bristol Motor Speedway. With 36-degree banked turns, 120-mph speeds and 42 cars on a half-mile track, the potential for mayhem is always present. Ty Norris, spotter for Winston Cup regular Steve Park, recently described the many challenges of guiding his driver during a race at BMS.*

*"Bristol is absolutely the hardest place to spot, bar none," Norris said. "I mainly do two things. I watch our Pennzoil car as well as try to watch ahead to warn Steve in case of trouble." "The problem at Bristol is both of those things are usually happening at the same time." The NASCAR spotter is positioned high above the track. Even from that vantage point, they can only*

see so much. Things happen fast at the World's Fastest Half-Mile. Real Fast. "At Bristol, you almost have to have one eye looking in one direction and one eye looking in the other direction," Norris said. "You can't use more than one spotter at Bristol. Things happen way too fast there and the spotters would be talking over each other," It all adds up to a major headache for the driver, spotter, crew chief and car owner. "Bristol is the most nerve wracking place," Norris said. "When I spot there I sometimes feel like I'm doing the radio broadcast. All I do is talk, talk and talk. I'm sure it bothers the driver, but you have no choice.

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## **TECHNIQUES OF A SPOTTER**

### **BEFORE THE RACE**

*-Each spotter, driver and track are different*

#### **COMMUNICATE**

*-Talk to your driver before the race (Each spotter is different, each driver is different)*

*-Attend driver / crew chief meeting I take notes*

*-Know your driver' s capabilities and competition (Who you can trust and who to watch)*

*-Prior to start engine, radio check driver and crew chief, discuss who calls green flag*

*-Make disclaimer regarding language on radio*

*-Prior to race during warm-up laps discuss with driver:*

*-Passing rules, pit-road speed, race distance ,scrub tires and make sure belts are tight*

*-At one to go, advise driver to be patient and to have FUN*

*-If possible, talk to driver on straights only*

*( Driver needs to concentrate in turns )*

*-Allow radio time for crew chief*

*-When driver is not in traffic always look ahead for incidents*

*(Visually scan track)*

### **CAUTIONS FOR ON-TRACK INCIDENTS**

*-Call location (Turn one, back straight, etc...)*

*-Call type of incident (Debris, spin, wreck, etc&)*

*-Call caution and advise driver to wave off cars in rear*

*-Call track conditions (Track is blocked, track is clear high, etc&)*

### **DURING CAUTION DISCUSS**

*-Passing rules on restart*

*-Scrub tires*

*-Make sure belts are tight*

**SHORT TRACK** - No pit stops

*-Conserve car*

*-Split race into 1/4s (100-lap race, call 25-laps, 50-laps, 75-laps and drivers position)*

*-If the driver gains a lot of positions in a few laps, but no more in the next few have driver conserve and race at the end.*

*-Call pace car*

*-Record lapped cars and cars out of competition*

## **Emotions**

- Don't let emotions get into your technique
- Usually a relative or owner is too emotional (Not always).
- Work with other spotters - Have all spotters in same area with an official
- If the spotter is excited and it reflects in his/her voice, it will get the driver excited

### **GIVE RESPECT - GET RESPECT !!!**

- Practice, Practice, Practice Practice to a spotter is like seat time to a driver
- Observe and monitor other spotters in different series
- During other races pick a car and pretend you are spotting for that car
- Passing-Look ahead for weakness (IE: If car in front is pushing, pass on inside)
- If possible use lap-cars for picks
- Ensure car is clear, error on the side of safety (If not sure, tell driver Your call)
- Use secondary spotter if large track or if depth perception precludes safety
- Work with driver during practice or before race to identify "blind areas" or areas that are hard to call
- Praise in the public, criticize in private
- Evaluation - After each race while it is still fresh in your mind: Have the driver evaluate your performance
- You evaluate the drivers performance
- Be constructive in criticism
- Use a 1-10 scale
- Don't use profanity (Other people monitor) Use car numbers, not names (Don't call other drivers bad names)

## **COACHING**

- Keep driver calm (Can't win on 1st lap)
- Praise your driver
- Good job (After passing)
- Good line (When his line is good)
- Advise driver if other lines are faster

*Encourage driver after passing, get next car for position)*  
*-Remind driver to conserve car (Get what you can, & then cruise)*  
*-Remind driver to hit his marks*  
*-Driver shouldn't have to use mirror*  
*(Spotter needs to let driver know what's behind and along side)*  
*-If car is loose or tight, try different lines*  
*-Advise driver of leaders position on track*  
*-You will do more coaching with a rookie than with a veteran*  
*-If time permits have a radio class before race*  
*-Discuss radio procedures*  
*-Spotter - Defacto communications specialist*  
*-Trouble-shooting*  
*-Work with driver on different passing techniques*  
*(IE: If passing on inside isn't working, try outside)The higher the division the more chance someone will monitor If you are good as a spotter, it will be recognized, and you will be asked to work in other divisions*  
*Review each race - What you need to do to win next race*

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## **TOOLS OF A SPOTTER RADIO BAG**

*Two Radios*  
*Scanner*  
*Spare batteries*  
*Headset*  
*Timer*  
*Check off sheet*  
*Binoculars*  
*Notebook*  
*Rulebook*  
*Ball-point pens*  
*Sharpie pens*  
*Water*  
*Painkiller*  
*Sun-tan lotion*

*Small screwdriver set*

*Jacket*

## **SCANNING METHOD**

*Single Radio Scan*

*Single Radio plus scanner*

*Two radios*

*Two radios plus scanner*