AHSCS 2015 Rule Book

Welcome to the Arkansas Hare Scramble Championship Series (AHSCS). The series was founded in 1994. The purpose of AHSCS is to develop a system of competitive hare scrambles in Arkansas, where by a point accumulation process determines awards for overall and for all classes. The season will be one calendar year.

Visitors are welcome to attend and are encouraged to participate in our meetings and events. AHSCS promotes responsible motorcycling activities and encourages adherence to all motor vehicle laws and regulations.

AHSCS principles are to:

1. Promote family and youth participation in off-road motorcycling.
2. Create a learning environment in riding, mechanical, environmental, sportsmanship and citizenship areas.
3. Promote healthy competition and opportunity for competitive advancement for members in events.

ORGANIZATION: The organization of the Arkansas Hare Scramble Championship Series will consist of a Series President, Vice-President, Treasurer, Director of Scoring, Director of Contingency, Webmaster, and one representative from each sponsoring club or promoter. AHSCS will follow all Arkansas laws governing its corporation.

GENERAL: Each motorcycle race event is broken down into motos (track length and time). Within some motos there are divisions. Divisions (classes) exist to create fair and even competition amongst series racers.

----- RACE DAY TENTATIVE ITINERARIES -----

Sunday

- 7:30 AM Bike Sign-Up Opens
- 8:15 AM Moto #1 - Pee Wee practice then race 20 min
- 9:00 AM Moto #2 - Kids Practice then race 30 min
- 10:00 AM Moto #3 - Jr. Short/Women practice then race 45 min.
- Practice & Rider's meeting for long course is optional for each promoter
- 12:30 PM Moto #4 - Long Course RACE (2 hours)

  *Itinerary subject to change and is at the discretion of the promoter and shall be based on weather and/or course conditions. In the event the itinerary is changed, at least 24 hour notice will be posted.

Moto 1 track length length should not exceed ½ mile and will run for 20 minutes.
Moto 2 track length should not exceed 1 ½ mile and will run for 30 minutes.

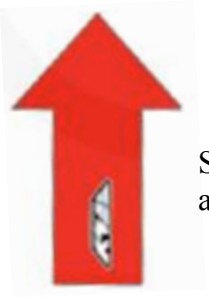
Moto 3 track length should not exceed 3 miles and will run for 45 minutes.
Moto 4 track length should be no less than 5 miles and will run for 2 hours.

Race Duration: The duration of each moto is determined from the time the moto starts. Each rider should keep going until they receive the checkered flag. We do not adjust the "stop time" by the row on which a class starts. If race conditions deteriorate and it is determined that riding another lap would be dangerous to the riders, the promoter and scoring director reserve the right to end the race early.

NOTE: The exception is the 1 hour schoolboy class. The start time for that class will be adjusted so that they run for one hour after they leave the starting line. The time can vary. Most of the time each class starts 1 minute apart. However, sometimes they start 30 seconds apart, and in rare cases lines are combined. At the main checkpoint, the scoring crew will put a sign out indicating when the schoolboy class race is over. If unsure, the schoolboy class riders should ask the workers at the checkpoint.

Trail Markings:
Trail markings consist of directional arrows with a minimum size of 4"X6". Surveyor's tape may be used in tight sections to supplement arrows. The color of arrows and other markings should be chosen to be highly visible. The only markers to be visible to the rider shall be those markers that constitute part of the AHSCS course being ridden in the AHSCS race.

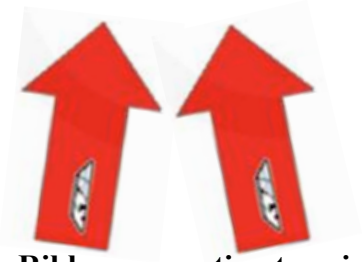
Arrows are the primary course marker used to establish the boundaries:



STRAIGHT ARROW: Course is 25 feet on either side of the arrow.

45 DEGREE ARROW: Marks the INSIDE boundary; course is 25 feet around the outside of the arrow.

SIDEWAYS ARROW: Marks the OUTSIDE boundary; course is 25 feet to the inside of the arrow.



PAIR OF ARROWS: Constrains the course; you must go between the pair of arrows.

Ribbon or caution tape is also used:

SINGLE RIBBON: Marks a boundary. Do not cross the ribbon.

PAIR OF RIBBONS: Constrains the course; you must go between the ribbons.

- **If a rider tears through a ribbon, it is the rider's responsibility to put the ribbon back in place so other riders do not get off course.**

Other markers include:

DANGER X: Marks a hazard.
DANGER XX: Indicates severe danger.
DANGER XXX: Indicates extreme danger.

WRONG WAY: Denotes a trail or path that is not part of the course. Banner is also used for this.

STRAIGHT DOWN ARROW: Indicates a drop-off.

MULTIPLE ARROWS: Indicate a split in the trail or multiple legal course ways.

CAUTION AREA: There will be a caution area posted 50 ft. preceding each check. There will be NO PASSING within this area. Anyone passing in this area is subject to a penalty to be determined by the promoter or scoring crew.

MEMBERSHIP:
Series Points and Awards: Series points will be awarded to series members only and are based on 70% of the total number of series races, or 9 races whichever is less. Series points for nonmembers will not be scored with the series members. Riders will only receive series points from the races in which he is a member, and will not receive points from previous races from which he was not a member of the series. Riders must ride 70% (rounded to the nearest whole number) of the total number of series races, or 9 races whichever is less of the total number of races to be eligible for year-end awards or class placement. If a member has paid entry without a refund at a race, that race will count toward the 70% of races needed to be eligible for a year end award. If a member scores a Did Not Finish (DNF) for not completing at least one lap, they will receive 0 points. If the member completed at least one lap, they will score points where they finished in the race. Any member that is disqualified from an event will not receive credit or points for that event. Regardless of the number of races attended by a member, class and overall placement will be determined by points. The cost to be a series member is $35. If riders sign up for membership before February 1st, the cost is only $25.

Free Memberships for Peewee/Kids Course racers:
Memberships are free and automatically awarded for any child, signing up in the Peewee, Kids Advanced, or Kids beginner classes. Should any member with a free (child's) membership choose to ride in the short course or long course, he/she is not eligible to do so as a member and earn points. If points are desired for the short or long course races, the child must first become a paid member in order to be awarded points for those races. Any child with a free membership, is only eligible to earn points in the Peewee or Kids classes on a free child's membership.

Darrell Judy Race of the Year Award: Each year, all award winners will vote on the following: Darrell Judy Motorcycle Race of the Year, Rider of the Year and Most Improved Rider of the Year. Each will receive an award.

Ironman Award: To qualify for an Ironman Award the following criteria must be met:

- Rider must be an AHSCS member.
- Rider must enter every points-paying AHSCS Scheduled Event.
- Rider must sign up to ride in an AHSCS points-paying class.
- Rider must pay the entry fee and does not receive a refund for that race.

- Rider must start every points-paying race.
- Rider must complete at least ½ of the laps of the winner of the class they signed up in.
- Rider does not receive a MAJOR penalty or Disqualification (DQ) from any race.

Course Marshals: Before the 1st round of each year and periodically as needed during each race season, the AHSCS Officers shall solicit volunteers to serve as a Course Marshal for each event. In exchange for their service, Course Marshals will receive FREE entry to the event (including gate fee waiver), free ride time, and a rewarding volunteer experience. Course Marshals shall pre-ride the course prior to race day to inspect for proper course marking, report to the promotion crew which course areas need attention, and intermittently sweep the course for downed riders during each moto.

Course Marshals shall wear a florescent vest provided by AHSCS on race day from 7:30AM until the course has been swept by a sweep rider after the last moto. Marshals shall become familiar with the courses as much as possible in order to answer questions from members, direct personnel responding to injured riders and/or broken-down equipment on the course, and escort lost riders to the parking area. When equipment is available, marshals should periodically keep in contact with promotion crew and/or scoring crew by radio. Unless in transit to an injured rider, Course Marshals shall give way to ALL racers that may be approaching from behind and shall not affect any racer that needs to be passed by that marshal.

Racers shall use caution when passing a Course Marshall and shall not pass aggressively. Racers are encouraged to report an injured rider's location to the course marshal, promotion crew, or scoring crew. **NOTE: If the Course Marshal does not give way he is more than likely in transit to an injured rider needing assistance.**

Race Sweepers: Each event will have at least two sweep riders available IMMEDIATELY after each moto (when the checkered flag waves), one of which may be the Course Marshal. Sweep riders will wear a florescent vest for identification and will assist any riders having difficulty navigating or finishing the course. After the final lap of each moto, sweep riders shall not pass any racer to ensure the course is clear except to search for assistance.

Official AHSCS Sweepers: The intent of this rule is to add to a promoter's sweep riders, not replace his/her volunteer staff.
A promoter can have 2 and only 2 "Official AHSCS Sweepers" and 1 alternate race sweeper for his/her event. The names for the Official AHSCS Sweepers and the alternate must be given to the AHSCS President or Vice President a minimum of 30 days before the event. (This avoids a scenario where a rider has a broken bike and is taking advantage of the rule to maintain their Iron Man status). A promoter does not have to utilize Official AHSCS Sweepers.

Qualifications for Official AHSCS Sweeper
- must be an current Member of AHSCS
- must be C class or higher
- must be registered as an Official AHSCS Sweeper with the President or Vice President 30 days in
- advance of race event

- must report to race registration check-in opening and remain available until after protest period
- Official AHSCS sweeper must wear Official AHSCS Staff vest during the event

The Official AHSCS Sweepers and the promoter shall not lose their eligibility for Iron Man award for the event they promote or work. This benefit can only be used once per event per season. Rider will receive a 0 for points for the race but not lose Iron Man status.

For the morning motos both sweepers should be on the track as a lead and follow sweep. They are there to assist scoring officer and promoter with injured or downed riders and correcting course markings and other track issues.

For the long course it is suggested that only one sweep run the course at a time, with one sweep waiting with scoring. The two riders may switch out each lap. This keeps a fresh sweep rider with scoring the entire race and one on the track the entire race. The sweeps will be used to help downed riders, locate injured riders, report and or correct race issues like blown ribbon, course markers, etc.

A promoter is not required to use this benefit or may not be able to obtain volunteers for the event.

Results: Every rider's lap time will be recorded. Each rider's finish will be recorded in minutes and seconds. Once the sweep rider gets back to the MAIN checkpoint, scoring will stop. Moto and class results will be posted for viewing upon completion of each race. A horn will honk indicating results are posted. Each rider has a responsibility to ensure their lap time is recorded by the scoring team. There will be a 15 minute protest period after all scores are posted. Only series points can be corrected after the 15-minute protest period.

Protest: All protests at the races should first be taken to the race promoter. The promoter will engage the Scoring Chair and/or other officers present at the race as necessary. When protesting you must be specific about the protest. You need to be able to identify the racer and/or location where the infraction occurred.

Class Colors & Numbers: To be scored during the race, motorcycle class numbers must be displayed on the FRONT and both SIDE number plates. Numbers shall be a minimum of 2" tall and MUST be on the bike when it comes through the checkpoint. Temporary numbers will be available at signup.

Note: Suggested colors (NOT required, just recommended):
* Expert AA Class: Red Background / White Numbers
* Advanced A Classes: Black Background / White Numbers
* All other classes: White Background / Black Numbers

Numbers: Class numbers 1-10 are reserved for the top 10 overall riders from the previous year, EVEN if the rider does not choose to use the number.

CLASS INFORMATION

PEE WEE – Moto #1

- $10 entry fee with free membership
- Practice lap starts at 8:15
- Race running time of 20 minutes
- Number range: 50-99 (same as Kids B)
- Ages 6 & under
- Max front wheel of 12" Max rear wheel 10"
- Bikes restricted to include:
  - Honda - CRF 50 & XR 50
  - Yamaha – PW 50 & TT-R 50
  - KTM – mini – NO pro minis allowed
  - Kawasaki – KDX 50
  - Suzuki – JR 50
  - Cobra 50cc mini

Kids A – Moto #2 – Row 1

- $15 entry fee with free membership
- Practice lap starts at 9:00
- Race running time of 30 minutes
- Number range: 11-49 (same as Short C)
- Ages 10 & under
- AP range 81-100
- Max front wheel of 16" Max rear wheel 12"

Kids B – Moto #2 – Row 2

- $15 entry fee with free membership
- Practice lap starts at 9:00
- Race running time of 30 minutes
- Number range: 50-99 (same as Pee Wee)
- Ages 10 & under
- AP range 80 & below
- Max front wheel of 14"

Short A – Moto #3 - Row 1

- Practice lap starts at 10:00
- Race running time of 45 minutes
- Number range: 900-999 (same as Schoolboy)
- Ages 13 & under
- AP range 81-100
- Max front wheel of 19" Max rear wheel of 17"
- $5 discount to series members

Short B/Women – Moto #3 – Row 2

- Practice lap starts at 10:00
- Race running time of 45 minutes
- Number range: 300-399
- Women of any age – No AP restriction
- Boys Ages 14 - 16 – AP restriction 80 & under
- No bike restrictions
- $5 discount to series members

Short C – Moto #3 – Row 3

- Practice lap starts at 10:00
- Race running time of 45 minutes
- Number range: 11-49 (same as Kids A)
- Ages 13 & under
- AP range 80 & below
- Max front wheel of 17" Max rear wheel of 14"
- $5 discount to series members

Age Classes: To be eligible for the age based classes a rider must be that age on or before the day of the season's first race.

Illegal Engine/Tire Size: A penalty will be given if a racer participates in a class with the wrong engine or tire size. Penalty will be up to the promoter and scoring team.

Riding up a Moto for kids/short course racers:
Any youth aged racer who wishes to ride up may do so; however, if a youth aged racer is capable of riding up a moto, (ie: a member of the kid's course race chooses to ride up in the short course race or a member of the short course race chooses to ride up in the long course race) he/she is no longer considered to be a "beginner" level rider in his/her originating class. Any kid's course racer who wishes to ride up into the short course, will from that point forward sign up in the kid's advanced class and becomes ineligible to race in kid's beginner. For example, a racer can race in both the kid's advanced and the short beginner classes at the same race, but any kid's beginner racer who wishes to ride up to the short beginner class, should sign up in the kid's advanced class from that day forward, for he/she at that point becomes ineligible to sign up in the kids beginner class. Same applies to any racer who is currently in the short course and wishes to ride up into the long course.

AA – Moto #4 – Expert Riders – Row 1
- $50 entry fee
- Number range: 11-49
- No age or bike restrictions
- Race running time of 2 hours*

A Open – Moto #4 – Row 2
- $40 entry fee
- Number range: 50-99
- AP range: 84-93
- Race running time of 2 hours*
- $5 discount for series members

A 35+ - Moto #4 - Row 3
- $40 entry fee
- Number range: 100-199
- AP range: 84-93
- Racing running time of 2 hours*
- $5 discount for series members
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B Open – Moto #4 – Row 4
- $40 entry fee
- Number range: 200-299
- AP range: 75-83
- Race running time of 2 hours*
- $5 discount for series members

B 35+ - Moto #4 – Row 5
- $40 entry fee
- Number range: 300-349
- AP range: 75-83
- Race running time of 2 hours*
- $5 discount for series members

B 50+ - Moto #4 – Row 6
- $40 entry fee
- Number range: 350-399
- AP range: 75-83
- Race running time of 2 hours*
- $5 discount for series members

C Open – Moto #4 – Row 7
- $40 entry fee
- Number range: 400-449
- AP range: 67-74
- Race running time of 2 hours*
- $5 discount for series members

C 35+ - Moto #4 – Row 8
- $40 entry fee
- Number range: 500-549
- AP range: 67-74
- Race running time of 2 hours*
- $5 discount for series members

C 50+ - Moto #4 – Row 9

- $40 entry fee
- Number range: 550-599
- AP range: 67-74
- Race running time of 2 hours*
- $5 discount for series members

Schoolboy – Moto #4 – Row 10

- Practice will be up to the promoter
- Race running time of 1 hour
- Number range: 900-999 (same as Short A)
- Ages 17 & under
- No bike restriction
- $5 discount to series members

D Open – Moto #4 – Row 11

- $40 entry fee
- Number range: 600-699
- AP range: 66 & below
- Race running time of 2 hours*
- $5 discount for series members

D 35+ – Moto #4 – Row 12

- $40 entry fee
- Number range: 700-799
- AP range: 66 & below
- Race running time of 2 hours*
- $5 discount for series members

Transponders: Each rider is required to have a transponder to be scored. Each **MEMBER'S** first transponder is FREE, $5 for each additional or replacement transponder except transponders which do not work may be exchanged for a new one without charge. **Non-member's transponder fee is $5.** There will be no rentals. Transponders should be brought to sign-up at each race to verify working order. For more information about where to attach a transponder, please see a member of the scoring crew.

Silencers: All motorcycles must be silenced in accordance with state regulations.

Protective Equipment: All riders regardless of racing class must, at a minimum, wear a helmet and appropriate footwear.

Pit Stops: All pit stops must be made off the track and not within 50 ft. of either side of the scoring areas.

Flags: Flags are defined as follows:
GREEN: "START"
CHECKERED: "FINISH"
RED: "RESTART" - At no time shall any person, other than scoring or the promoter of the event, stop a race. Racers are advised to consult with the scoring crew if anyone has instructed the race is being stopped. In the event a race has been stopped early by scoring or the promoter, riders should report to the sign up area or the rider meeting area to determine if there will be a re-start.
BLACK: "STOP NOW" an official wants to talk to the rider. Being given the black flag does not necessarily mean disqualification, but failure to stop WILL result in a disqualification.
YELLOW: "CAUTION AHEAD" – this will be used if a rider is down. SLOW DOWN and be prepared to move to one side or the other of the course. If a racer does not reduce speed when given a yellow flag, the racer will receive a penalty determined by the officers present at the event.

Starts: The start of each race (except Pee Wee) will be a dead engine. Riders may start ON the bike except when promoter has decided an OFF-bike start will be used. Pee Wee shall be live engine start with the rider ON the bike. Adults may assist the youth riders after the youth rider has made a reasonable attempt to start their machine and is unable to do so. The way a promoter starts their race must be announced at the riders meeting before the race. All classes will start 1 minute apart, except for shorter courses, whereas, it would be up to the promoter to determine if it is necessary for 30 seconds between classes. The scoring team must be notified of 30 second intervals by the promoter. Remember, no doubling up of classes on one starting line will be allowed.

Changing Motorcycles: A rider who starts a race on a particular motorcycle must finish the race on that same motorcycle. Crossing the start line constitutes starting the race. There will be an automatic disqualification if this rule is broken.

Pit Riding: Riding in the pit area is prohibited except as transport to and from the race course or signup, in which case speed will be limited to 5 miles per hour or first gear, whichever is slower. Riders are required to wear helmets while riding their bikes. Racers ignoring this rule may be penalized and spectators/racers ignoring the rule may be asked to leave the premises.

Track Cutting: Anyone intentionally cutting the course will be penalized as determined by the promoter and scoring chair. Cutting course is generally classified as a MAJOR penalty. Inadvertent cuts (i.e. missing a section of course and not recognizing it until a later lap) may be reduced to a minor penalty at the discretion of the promoter and scoring chair on a case-by-case basis.

Jumping the Start: A rider who false starts must stop and put both feet on the ground. If he does not stop, he will be stopped at the end of the first lap and held for 3 minutes.

Starting in the wrong class: If a rider starts the race ahead of their class, they will be penalized. Penalty to be determined by the promoter and scoring team.

PENALTIES:

There are three types of penalties. Type of penalty issued shall be determined by the promoter and scoring crew:

1. Severe Penalty - a rider will be disqualified. Examples are, but not limited to, intentionally putting another racer in harm's way (i.e. violence of any kind against another rider), outstanding unsportsmanlike conduct, course cutting, or failure to adhere to a black flag.
2. Moderate Penalty - a rider will be penalized 1 lap from the total laps completed. Examples are, but not limited to, failure to give way to a yellow flag or responders attending an injured rider.
3. Minor Penalty - a rider can either be penalized by substituting their last lap time with the slowest of their lap times or other minor penalty found reasonable and suitable by the promoter and scoring chair.

Conduct: Anyone found behaving in an unsportsmanlike manner may be penalized or disqualified from a race in which an infraction has occurred. The series officers who are present

at the race site, along with the promoter of the race, shall determine if immediate action - disqualification, time penalty, etc. - is warranted. Repeated or extreme cases may result in the banning of that person from participating in the Arkansas Hare Scramble Championship Series for whatever period (including permanent ban) the current officers of the series deem appropriate. The decision to ban an individual from future participation shall be determined by a meeting/web forum discussion of the current officers of the series. A promoter has the right to ban the entry of any person to their race, should he/she elect to do so.

AMA RULES: Current AMA Hare Scramble rules apply except as modified by the AHSCS rules. AMA Hare Scramble rules take precedence over AHSCS rules only in AMA sanctioned National Hare Scrambles, which are sponsored by the AHSCS. Current AMA Hare Scramble rules may be view at http://www.amadirectlink.com/rulebooks

SCORING

Throwaway Races: 70% of the total number of races rounded to the nearest whole number, or 9 races whichever is less, will be used for scoring purposes.

Tie breakers: In event of an end-of-year tie in total points, the ties will be broken by first determining which rider had the higher number of first place finishes for the entire year. If a tie still exists, the higher number of second place finishes for the entire year will be used and so forth until the tie is resolved.

Finishing: A rider must complete one full lap to finish. If a rider shows up, pays the entry fee, starts a race and completes one lap, they are to be left in the point calculations for the race and series. The rider will be scored as a DNF and receive zero points unless they complete at least one lap.

Point System:

OVERALL	CLASS
1st-24pts	1st-22pts
2nd-22pts	2nd-20pts
3rd-20pts	3rd-18pts
4th-18pts	4th-17pts
5th-17pts	5th-16pts
6th-16pts	6th-15pts
7th-15pts	7th-14pts
8th-14pts	8th-13pts
9th-13pts	9th-12pts
10-12pts	10th-11pts
11th-11pts	11th-10pts
12th-10pts	12th-9pts
13h-9pts	13th-8pts
14th-8pts	14th-7pts
15th-7pts	15th-6pts
16th-5pts	16th-5pts
17th-5pts	17th-4pts
18th-4pts	18th-3pts
19th-3pts	19th-2pts
20th-2 pts	20th-1pt

Rider Advancement: It should be the desire of any rider to race a class in which they would be competitive. However, if a rider possesses a riding ability that exceeds the level of a particular class that he/she is signing up in for a given event, a series officer reserves the right to move that rider to a higher class. Any rider wishing to race in the next higher class may do so. They must notify the scoring chair prior to race day to discuss how it will be handled.

ADVANCEMENT PERCENTILES, BREAKING OUT, MOVING CLASSES:

The scoring system allows for categorizing riders into classes based on riding level, speed and experience. When a race has been completed, the top rider's speed is used to calculate the remaining riders Advancement Percentile (AP). That average speed will be the 100% baseline all other riders will be compared to for that race. The average of all completed lap times of each rider will be compared to this 100%-baseline to determine every rider's percentile.

Example: If 100% for that race is a 24 MPH average and a rider's average speed was 21 MPH, then that rider's percentile is 87.5. This system enables similar speeds to be grouped together. Another way of stating this is... The Overall Winner (OAW) of the race sets the "baseline" or is the numerator in the calculation, so… if the OAW does 5 laps in 2:04:44, then that is a total of 7484 seconds, OAW average lap was 1496.8 seconds. The rider being compared is the denominator in the calculation, so… Rider "A" does 4 laps in 2:14:01, which is a total of 8041 seconds, average lap was 2010.25 seconds. Take OAW average lap (1496.8) and divide by Rider "A" average lap (2010.25), then multiply by 100 and Rider "A" AP is: 74.5.

A percentile range is assigned to each class name. Class names are used to help riders pick the correct class and break apart large classes. After each race, all riders will be evaluated to see if their percentile is in the range for that class. Going above a percentile range is called "breaking out". To allow for fluctuations, a break out system has been developed. Each breakout point is recognized and stored. When a rider breaks out a total of 10 points, the rider will move up. One example would be a rider who does not enter the correct class and breaks out by 10 points on the first race. A second example would be a rider who breaks out two points each race for five races.

If a rider is a member and is moved up, the rider can carry points to the new class. This is done by re-evaluating the overall results for a given race and then determining where a rider would have finished had they been in that class on that day. An example would be a rider who finished 1st in B and would have finished 4th in A. 4th Place points will be awarded as they carry up points. This is carefully done so that no riders in the upper class lose their points.

If a rider is moved down, the points carry in the same fashion. A rider who wants to move down can submit his request to the Scoring Director. Percentile results will be evaluated to determine if the rider should be moved. A rider who cannot reach the minimum speed for his class can be moved down, after the rider completes a total of three races.

After a rider has ridden ½ the number of races for the year, they will not be moved by an officer to another class. Example: If there are 11 races for the year, ½ of 11 is 5.5 rounded to 6, so an officer won't move a rider to another class after the rider has ridden in their 6th race of the year. That does NOT mean the 6th "race of the year", it is the 6th "race ridden by the rider".

Any rider that feels he/she has been moved up unfairly or prematurely may petition the series officers for a ruling. A majority vote of the officers is required to rule on the petition.

Gate fee: There will be a maximum $5 gate fee for each person entering the race on race day. Practice fees will be up to each individual promoter.

CHANGE LOG:
12/31/2014 – Membership Fee Increase
1/1/2014- Official Race Sweep Pg 5