

# Proposal To Improve Trials Scoring - Gate Trials Explained

By Carl Peters

## **Problem:**

Since the advent of the stop-in-balance rule, observers have been unable or unwilling to apply the 5 point penalty for a stopped dab and riders reluctant to accept what seems to be an arbitrary or uncomfortable decision. This conflict of rules and results trivializes the sport and reduces its credibility, professionalism and stature in the eyes of spectators and potential sponsors. Furthermore, it is impossible to objectively, with confidence, determine a champion.

## **Approach:**

Since it is impossible for an observer to consistently make this determination the only rational solution is to eliminate the necessity. Ideally, only clean, error free attempts would count. Two scores - 0 for a failure and 1 for a clean are required. Only minor scoring rules for ties, etc. would change. This would be the simplest and most logical way to eliminate the 'stop' problem with it's limiting effect on the sport and the '3' which involves no skill and to require clean rides which is the true measure of ability in the sport. That proposal, however, has in the past been dismissed as unnecessary, unacceptable or too extreme. To minimize the effects of future shock the following system satisfies the above criteria but offers a more interesting opportunity to both the competitors and spectators. This system shifts the responsibility for failure to the competitor, it minimizes the necessity for the observer to make subjective or indeterminate decisions. In addition it eliminates the '3' call, requires a clean ride, is easier and more interesting for the spectators and, most importantly, allows the most skillful rider to win. These attributes should help the sport toward the prominence and support it needs.

## **Evolution:**

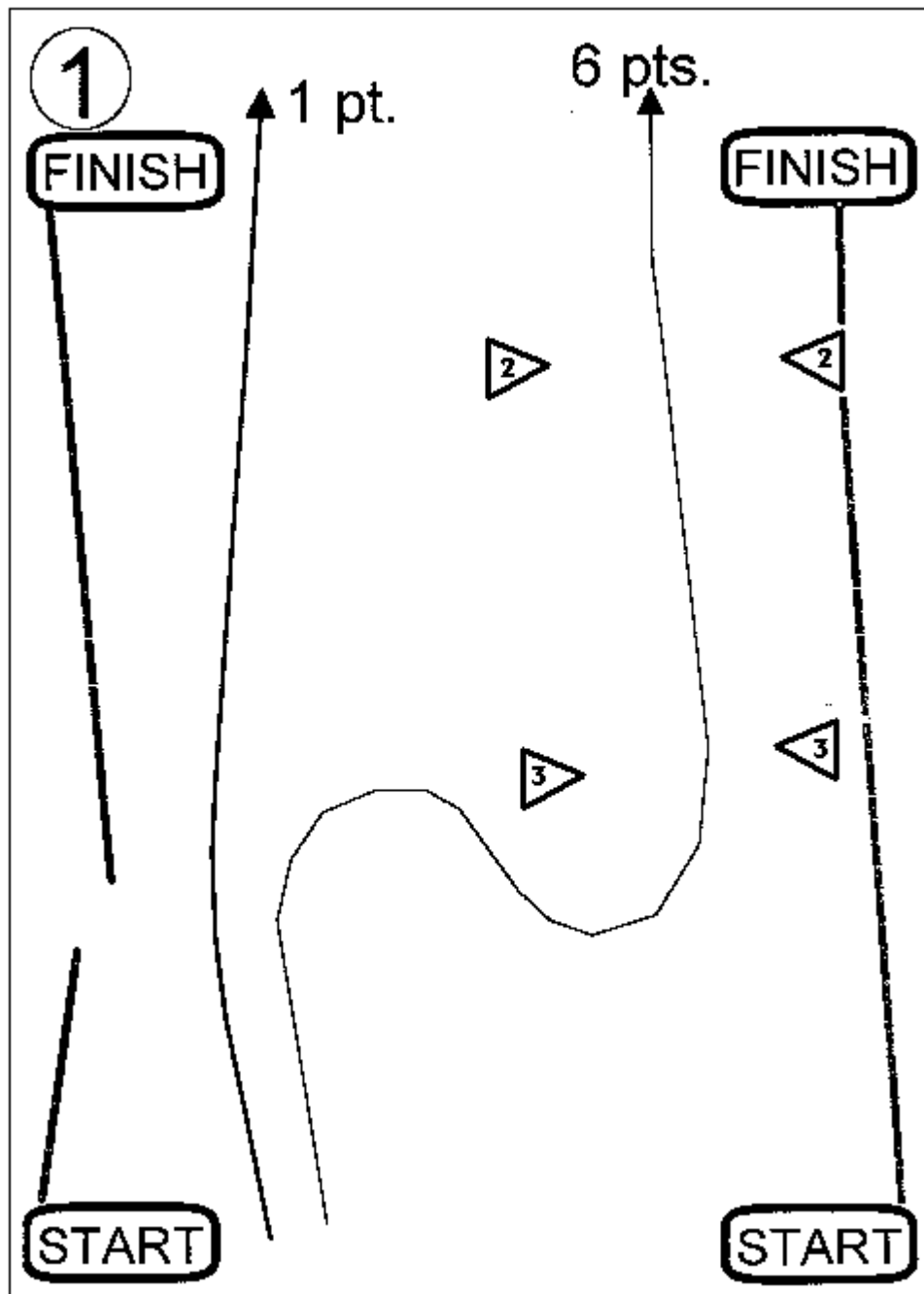
For the past several years I have been working on this problem and several other schemes have been considered or tested. Such as:

1. Allowing dabbing while stopped.
2. Wheel motion detectors.
3. Multiple observers.
4. Video recording.

None have been satisfactory. The method proposed, however, after several test trials has been surprisingly acceptable to the riders, observers, and spectators.

## **System:**

Known locally as the "Moreland System," this scoring replaces the conventional 1, 2, 3, 5 with a series of gates within the section. These gates are of different values depending on the difficulty or arrangement. We have chosen 1, 2, 3 as gate values to keep the observer's job easy. The number of gates in the section is arbitrary. We, again, to keep the observer's job easy, have limited the maximum total value of the section to 10 points. The section is still bounded by the normal red and blue boundaries and conventional start/ finish gates are used. The first illustration will show a generalized layout and some possible rider paths. Other paths are possible within the following rules.



**Riding Rules:**

1. The rider may choose to ride any or all of the gates. That is: he may ride only the 1 gate, only the 2 gate or only the 3 gate or he may select the 1 and 3, 2 and 3, etc. The rider does not have to inform the observer of his intent. A rider riding all 3 gates in the 1st illustration would gain 6 points for this section. Section values may vary depending on the terrain and length of section. We have limited total section values to 10 points. A section may only be worth 5 points but could have up to 5 gates or be worth 10 points and have only 4 gates. Many combinations are possible. The observer scores only those gates the rider goes through.
2. The rider must enter each gate from the start side. This is the side with the gate marking visible, and must obviously go between a matched pair of markers. We suggest 3 colors of cards or arrows with the gate value included. We have used orange (3 points), green (2 points) and yellow (one

point). A card arrangement giving the rider all information is shown. Printing the value aids colorblind riders.

3. Riders may go through a gate only once, and may not cross their path or go out of bounds to enter a gate. All modern trials skills may be used - stopping in balance, hopping, backing up, etc.

### **Scoring: Final Test Rules**

In our tests we allowed only totally clean rides i.e. no errors or failures anywhere in the section. Once the rider entered the section he could attempt any or all gates but only a clean ride from start to finish counted. Any error resulted in a zero score for that attempt. There were no ties! Ties can be broken by longest continuous string of cleans i.e. one rider could have a string of I I scores in a row before losing a section, another only 9. Or, preferably ties could be broken by best total score on 1st lap, etc. Counting only clean rides requires the competitor to make a critical assessment of his riding skills and choose only those gates he can clean. Obviously, when he fails it was his poor evaluation of his ability or of the difficulty and not the observers arbitrary call that caused the failure penalty to be incurred. In our tests there was not a single incident of rider/observer disagreement.

### **Points:**

**Pro:** Very well defined objective puts total burden of performance on rider. Observer only makes calls on dabs or out of bounds. Observer makes no subjective calls except at entrance/ exit (front axle in or out). The basic goal of the sport - clean rides - is rewarded.

**Con:** It has been suggested that riders will not attempt to gain the maximum for the section or may not attempt certain gates because the risk (section score) does not justify the possible gain (gate score). We did not see this occurring. Those riders that were reasonably confident they could clean a gate had to make the attempt in order to gain on their competitors.

In conventional trials, the riders tend to over value their skill and establish less stringent criteria for success. On a difficult obstacle merely getting through (a '3') is deemed successful or justifying a reward. This system raises the standard to the alleged goal of trials - a clean ride. We are quite certain all riders will attempt the maximum they think they are capable of and the scores will reflect their true capability.

### **Alternate Plans:**

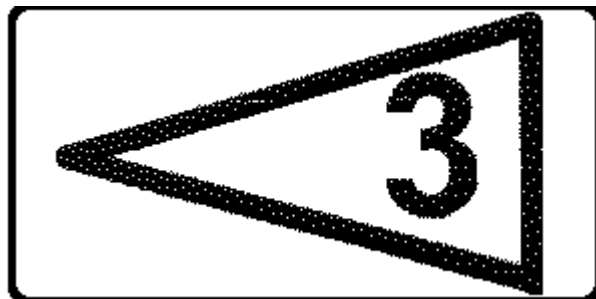
Several alternate plans have been considered.

- A. The rider could be given credit for the gates he cleans. Several disadvantages come to mind.
  1. The rider will attempt all gates to improve his chance of scoring. The rider, in essence, is forced to ride a fixed line as in conventional trials.
- B. The observer is forced to decide whether the rider is in or out of the gate area when the dab occurs (a judgment call).
- C. What about dabs in the "open" areas of the section?
- D. The rider could be allowed a limited number of dabs, say 3 while in the section. More than 3 dabs would constitute failure. The riders score would be the total points for the gates attempted minus the number of dabs (up to 3). We feel this combines many of the problems of the current system, including the stopped dab which allows unskilled arbitrary repositioning of the bike with its attendant subjective scoring, with the limitations of alternate plan 'A,' while complicating the observers job. A change with limited advantages.

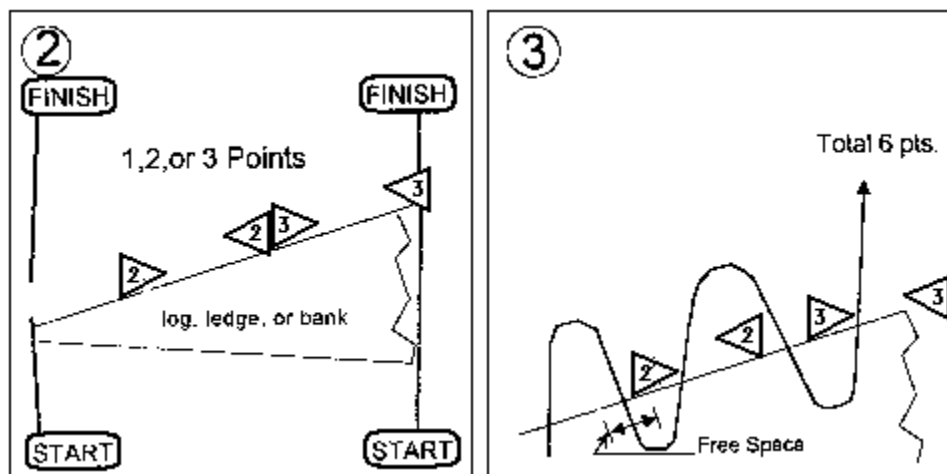
Our limited testing has not precluded additional ideas. Examples of experimental section markings with allowable rider response.

### Gate Markings:

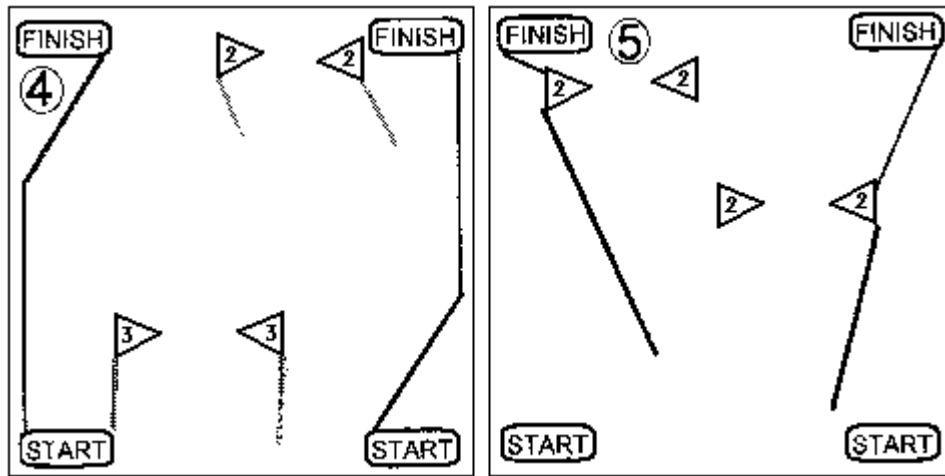
After testing several methods we think the best system would use 3 different colored arrows - orange = 3, green = 2, and yellow = 1, printed on one side of rigid cards. The configuration providing adequate information and minimum confusion:



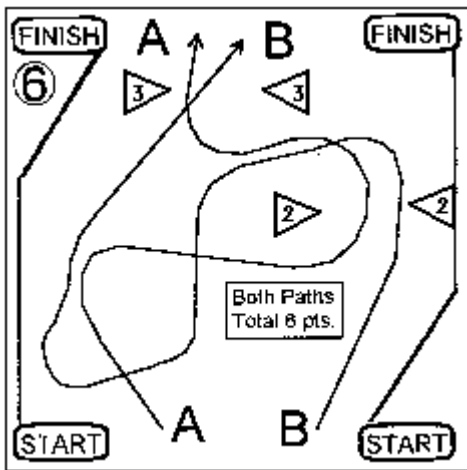
The number states the gate value and aids colorblind competitor. The same marker is used on each side of the gate. Tape used for gate control should be the same color as the gate cards and ideally, would also be imprinted with the gate value.



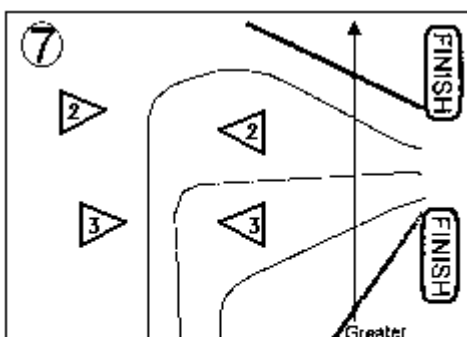
Obviously in #2 it is not possible to ride more than one gate since there is no 'free' space between gates, or boundaries. #3 is permissible. To prevent #3, white tape can be placed to block, in any gate configuration, free spaces. Gates can be extended or restricted using tape the same color as the gate to include certain combinations of obstacles, to cause the rider to include certain areas in his ride, to limit positioning for the next obstacle or to limit a rider to a particular approach. This is illustrated in #4. In addition the section boundaries can be routed to control the rider, as in #5.



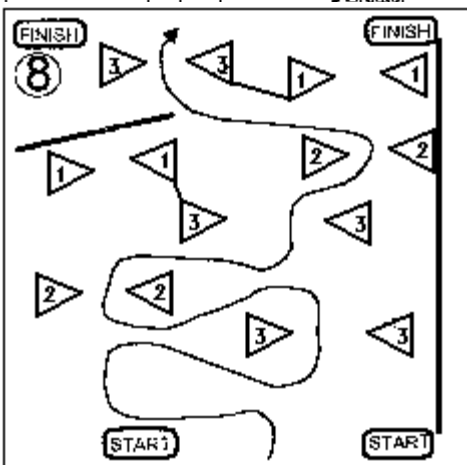
This system allows greater use of less suitable terrain by rewarding a difficult approach but allowing other options. A gate may be of high value not because the terrain within the gate is difficult but because it increases the path length, the turns required, or the difficulty of another obstacle.



In illustration #6, 1, 2, 3, 4, 5, or 6 points are possible. None of the obstacles might be very difficult but to gain additional points requires a longer path with sharp turns. A rider must be proficient in even the most basic skills lest he dab in the "easy" parts and forfeit the section.



Long hill climb or creek sections can be used by placing the gates to allow the use of fast riding techniques to gain advantage in timed sections. See Illustration #7.



Many combinations of gates and values are possible. Many of the illustrations only show three gates being used. The terrain and the imagination of the Clerk of the Course offer many opportunities.

Illustration #8 shows there is no problem with multiple gate combinations totaling more than 10 points. The rider will choose the combination giving him the best opportunity to score 10 points. He may ride additional gates with the attendant risk to improve that possibility, but can only score a maximum of 10 points.

Another feature of the system that became apparent during testing is that the riders will not attempt any gates they think are impossible or dangerous, thereby minimizing the effect of inexperienced or perverse Clerks of the Course and the weather.

### **Ranking Schemes:**

In single class or level trials- i.e. world and national championship, etc. the system ranks the riders in finishing order. The current Championship points system can be applied. For multi-class trials - club, regional, etc. where different skill levels are involved - ex. novice, intermediate, expert, etc. the riders performance on the day determines his "class" by the following method. The total point spread from highest to lowest for the event is divided by the number of classes, normally contested in the area the organizing club represents. The riders skill level is determined by the fraction his score falls in. Example: Event is run with four classes or levels of expertise novice, intermediate, advanced and expert. The best score for this event is 432, the lowest is 72, so,  $432 - 72 = 360 / 4 = 90$ . Quotients would be rounded up or down to the nearest integer. The lowest class will be non-uniform but of no real consequence in the outcome.

Each trial will produce different "class" breaks depending on the event and the number and skill of the riders competing. Each rider is compared to the best on that day. Season ranking is determined by the event rank most often obtained- ex. 7 events in the intermediate rank, 5 in the advanced. Competitor would be classified as an intermediate rider by that organizing body.

The advantage at the amateur, club or training level is that a rider can attempt any gate or combination based on his assessment of his skill. He can progress through the ranks or classes based on his demonstrated skill. Because cleans are required, each skill must be mastered before the rider can use it effectively for score. The rider is not forced upward in rank nor can he arbitrarily move up in rank title. When an exceptional rider from another area or competition level (regional, national, world) competes all local competitors are measured against this performance and over time a more absolute assessment of rider skill level will be determined.

After thinking over the results and comments, the rider and observer actions, and the possible effects on the sport, we feel the test trials offered at least the following conclusions:

1. The score was more credible. A dab, crash or out of bounds is a failure more easily defined and defended by the observer than the "stop" and less arbitrary to the rider and spectators. The outcome of the trial was a truer indication of the riders' performance.
2. The burden of performance or outcome was on the rider. The observer's role was that of recorder. The rider's strategy and skill were the key element in determining the score.
3. Sections were less dangerous, used more moderate terrain, and offered more riders more opportunities to display their individual skills. Sections did not have to stop most riders to determine a winner.
4. The spectators saw a greater display of skills or techniques in each section and since each rider could choose a different path and could vary his path on succeeding laps a higher degree of anticipation and excitement prevailed. In addition the observers stayed more alert since each ride could be 'new.'
5. Since the riders had a choice of which obstacle to ride and in many cases the difficulty of

approach or setup, no one was forced to take unjustifiable risks. Additionally, the Clerk was less likely to misjudge the collective ability. We deliberately provided a few gates we were sure were above the abilities of the anticipated competitors. These gates were not attempted by any rider providing an automatic control of the Clerk's imagination. The effects of weather and/or section deterioration or change during the event would be limited the same way.

6. Though not advocated, this system makes peer scoring (no observers) at the club or local level more viable since no arbitrary or controversial decisions are involved

There may be other ways, including other interpretations of this system to reduce or eliminate the current scoring and image problems of Observed Trials. The home run, the hole in one, the strike, the bulls eye, the clean - all the result of perfect technique. This system rewards that goal while allowing more riders more ways under more objective, fairer and safer conditions to achieve it. Trials for the 21st century!!

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## **Additional Thought # 1**

'Partial Credit' or score can not be objectively applied since the observer would have to decide whether the rider successfully completed a gate (front axle in?, rear axle through?). This was tried in the earliest tests (it seemed like a 'nice' idea) but could not be rationally scored. Allowing dabs, as mentioned in the report, brings back the current problem. As noted at the beginning of the proposal, the ideal system is binary - 1 or 0, pass or fail, but with the conventional single line section the spectators see most riders fail so the top 5 riders can compete. After the first lap interest is gone - not what we want. The change to multiple gates and the choice it offers the rider allows more riders to 'compete' without total failure and, we feel, maintains spectator interest for the whole trial, since as the scores are posted for successive laps, riders will be forced to reconsider their strategy. Gates not attempted initially will be tried to gain advantage. The last lap might see the best riding, the spectators will wait to see if anyone tries the hardest gates or most difficult combinations. The section is potentially 'new' for each attempt.

## **Additional Thought #2**

Crossing the riding path and driving 'backward' in the section. We retained these rules in our tests but saw difficulties when the gate arrangement encouraged these maneuvers. The original intent was to cause the rider to exercise some control and to minimize the opportunity to avoid certain difficult 'free' space 'n the section but it 's impossible to determine reliably if or when the rider crosses his path or is driving 'backwards' in the section. In the next test trial we will eliminate these restrictions to extend the 'absolute decision' philosophy to as many observer functions as possible. The gate rules included are based on eliminating these restrictions on the rider.

## **Additional Thought #3**

Markers: Some clarification may help. Originally we used tape and when the marker was on a large tree it was wound completely around so the gate was visible to the observer. This is a requirement since the observer must know the value of gates. The markers shown in the proposal need to be modified to include a 'tail' as shown. This 'tail' can be bent around to the observer side of trees, posts, etc. Where the support is too large the tail can be cut or tom off and fastened in a position visible to the observer. Both sides of the gate should be marked. It might be possible or less costly to print continuously marked tape to be cut

appropriately. This tape could be used for gate extensions also. One caution- the 'front' or entry side of the gate should be marked differently than the 'observer' side. That is, using tape, the tape should not be wound around a tree or stake, etc. so the entry side could be mistaken. That is why the observer marker is just the colored, numbered square.

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## **Gate Scoring Rules for Moreland Scoring System**

The general description of the system does not explain the detailed rules regarding gate protocol and scoring. The following scoring gate rules maintain the general system philosophy of no subjective or indeterminate decisions being required of the observer. The start/finish gates remain the exception.

Since it is impossible for the observer to determine the instantaneous position of the motorcycle in relation to some point or line in the section positional criteria cannot be used to determine score objectively or with the required consistency.

Except for the first test trial we have used a rational based on direction. The fundamental premise is that the rider must pass through the gate from the marked or entrance side. Certain requirements and limitations have been incorporated to maintain the intent of the sport and to minimize conflicting or confusing rules.

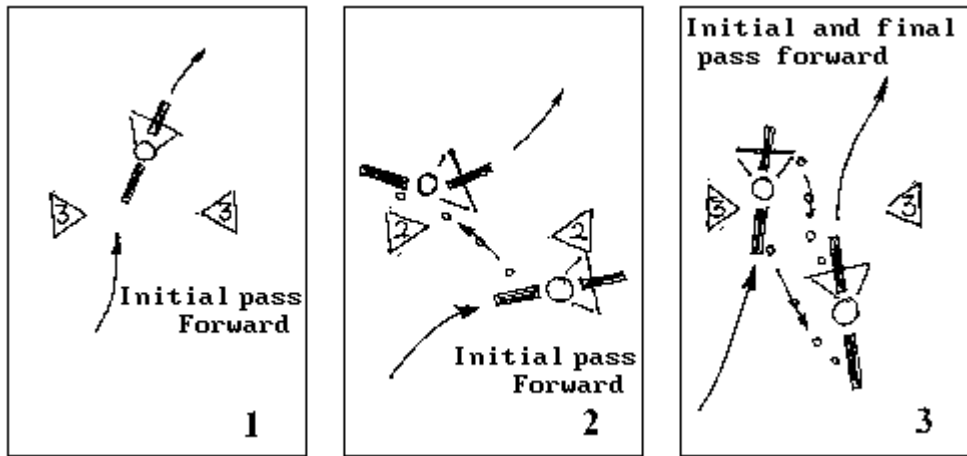
### **Gate scoring rules:**

1. The gate score is awarded when the first and last pass through the gate is in the forward direction regardless of motorcycle orientation. The forward direction is defined as passing from the marked side of the gate to the unmarked side.
2. A given gate may be scored only once per section attempt.
3. It is permissible to drive or back into or through any gate from the 'wrong' or exit side. No score is gained or lost regardless of the final pass direction.
4. If an unscored gate is used in the no score direction it cannot subsequently be ridden for score. That is, the rider has used the gate for some advantage and cannot then reuse that gate for score. However, a rider may first use a gate for score and then, after completing another gate other than the exit gate, use the previously used gate in the wrong direction as in Rule #3.
5. A given gate is considered completed only when a rider either attempts another gate or the exit gate.
6. Start and finish gates are used only to determine when the rider is in the section which is still defined as front axle in/ front axle out. However, the above rules allow the rider to back in or out of the section but the 'front' axle is still considered to be at the handlebar end of the motorcycle. We have been unable to logically remove this positioning requirement of the start/finish gates. If these gates are arranged so as not to be part of the test problems should be nonexistent or minimal.

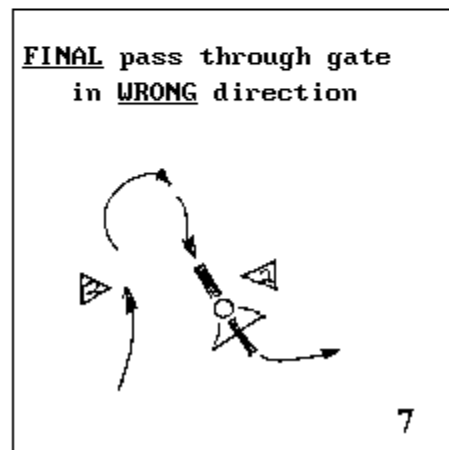
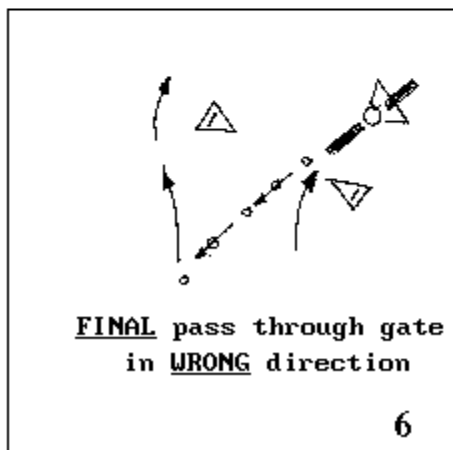
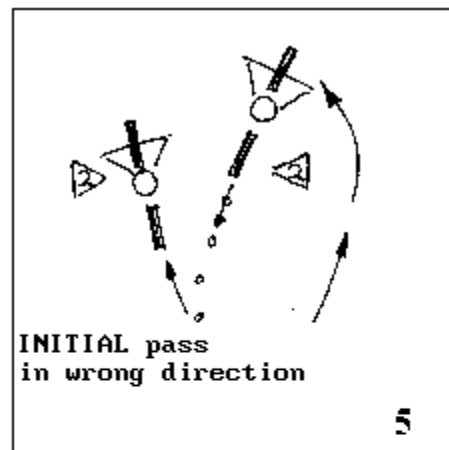
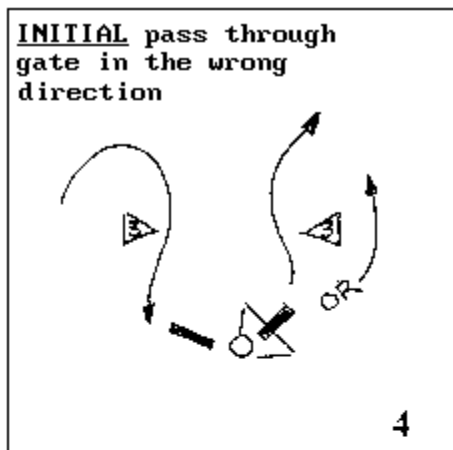
To rationalize this system the observer must consider a given gate in the context of the rider's action. A certain gate is not considered complete, that is, no score can be assessed until the rider, by attempting or completing another gate, indicates he has terminated scoring intent at the gate in question. At that point the observer can conditionally tally that gate in anticipation of a clean (no error) ride.

Since gate score is based solely on the act of passing through the gate from the marked side to the unmarked side the rider can drive through the gate in the forward direction, back through the gate in the forward direction or drive through, back through and then re-drive through - all acceptable attempts.

However, to not reintroduce the position dilemma and to keep the observers job as simple as possible we have chosen not to award or delete gate score for initial entry from the wrong (exit) side. This includes both driving and backing. The illustrations may help clarify this.



The paths in diagrams 1, 2, and 3 are awarded 3 points for the gate. In diagram 5 and 6 no score is awarded because the initial pass through the gate is from the wrong side. Or in other words, in the wrong direction. No points are awarded in diagrams 6 and 7 because the final pass through this gate is in the wrong direction.



The key controlling element in these scenarios is that of relative direction. The observer cannot decide whether the rider has passed some point but he can tell without question from which direction the bike entered and left the gates. Backing through the gate from the forward side (diagram 2) is valid within the intent of these rules. The initial direction and path along with the final direction and path must be considered in validating a score at a gate.

Allowing score for backing or driving in from the 'wrong' side of the gate brings in the position problem again, i.e. did he back in far enough to be 'in' or through the gate" Again, an indeterminate call. We chose to allow the rider to back or drive through a gate from the wrong direction without penalty and without score since- 1) We have authorized backward travel in the section and we don't want to complicate that rule or the observers job, and 2) we cannot ascertain position absolutely so we can not decide whether the rider is in the gate or not so we cannot fairly penalize or award the rider.

It is important to remember that in most sections the rider will attempt the gates in the simplest and easiest way. Even though it is allowable to drive through gates backward or to back through gates the parts of the section other than the gates or the required maneuvers may pose considerable opportunity for failure. Extra turns and travel will only occasionally be to the rider's advantage.

It is our intent to conduct several trials during the coming season to further test these ideas and rules.

We think this system eliminates all requirements for subjective or indeterminate decisions by the observer except for the start/finish determination and out-of-bounds calls. Both of these can be minimized or eliminated by proper and intelligent section layout. The observer must only ascertain the rider's direction through the gate and if he dabs or totally falls (crashes). We believe this system can make the sport more interesting for the spectator, easier for the observer, and fairer and more challenging for the competitor.