## Computer Handicapping - "Tripping" the Light Fantastic with FUMO By Joe Mainardi

I love a pun - good, bad or ugly - so I couldn't resist using one to introduce this month's subject. I also told you that I'd lighten up on the technical stuff whenever possible. I hope that you find that my explanation of FUMO, the exclusive Hor\$ense trip and pace evaluators, are just the low-tech ticket you've been waiting for.

In earlier versions of Hor\$ense - and in recent articles found between these pages - I've over-burdened many of you with the overkill of exact positioning of the horses when calculating trip and pace. Well, it came to me in a flash... okay, it was actually a long, drawn out, boring discussion with myself. So, what was this revelation? Not much, really. It was simply that the TRIP/PACE analysis in Hor\$ense was too brutally awash in numbers, when approximation was something that would make the analysis easier to understand. So, I changed the focus of the TRIP/PACE analysis from raw numbers to their FUMO running styles.

As I mentioned in the "teaser" in my last article, FUMO stands for: Front-runner, Up-close, Mid-pack, Off-pace. These represent the running styles of horses. Let me show you how they're defined... hopefully, I'll do such a great job explaining it that you'll be able to use them, too.

Our first stop is defining FUMO is at the pace line of a PP. A Front-runner is simply a horse that is on the lead. An Up-close horse is one that is in $2^{\text {nd }}$ place in any race, as far back as $3^{\text {rd }}$ in a field of 6 to 9 , and as deep as $4^{\text {th }}$ place in field of 10 or more. Let's skip the Mid-pack definition for now... you'll see why in a moment. An Off-pace horse is one that is near the back of the pack. Here, common sense is the rule: an $\mathbf{O}$ horse in a 5 horse field must be last, but an $\mathbf{O}$ horse in a 12 horse field can be in $8^{\text {th }}$ place; I'm sure that you can fill in the rest. Now, the Mid-pack definition is easy... if the horse doesn't match any of the above styles, then it's an $\mathbf{M}$ horse.

Armed with this information, the next step is to define FUMO for the speed-based component of a trip analysis. This is done by calculating the speed for each horse, and then defining it in terms of lengths-behind. Defining speed can be as simple as eye-balling it, or a detailed as having a program calculate it for you. Once you've finished that step, and you determine the lengths-behind for each horse (use $5 \frac{1}{2}$ lengths per second), you'll need some speed-based definitions. A Front-runner is simply a horse that is found on or "near" the lead. "Near" the lead is different for sprints and routes: for sprints it's $1 / 2$ length, and for routes it's $3 / 4$ length. An Up-close horse is also fairly simple. For sprints it's greater than $1 / 2$ length and less than $23 / 4$ lengths, and for routes it's greater than $3 / 4$ length and less than $33 / 4$ lengths. Again, we'll skip the Mid-pack definition for a sentence. There is no change in determining an Off-pace horse, as the same rules apply to those above. Guess, what? Yep, a Mid-pack horse is whatever is left over.

Okay, but how do we use this information? I'm glad you asked. There are many ways to assign values to the running styles, but I'll give you a simple one. Let's say that an $\mathbf{F}$ is $1, \mathbf{U}$ is $2, \mathbf{M}$ is 3 and $\mathbf{O}$ is 4 . When you compare the various pace and trip evaluations - in Hor\$ense, they're BEST, REAL and SPEED evaluations - the horse with the best trip will be the one with the lowest ABSOLUTE score. Huh? It's math, but it's not hard... and here's a quick example. It's just one call (first or second call, it doesn't matter) for three horses, but you can expand it to both calls and bigger fields to figure out a full race. By the way, the "ABS" stands for ABSOLUTE value, and means the difference between the numbers, without worrying about whether it's positive or negative.

| HORSE | BEST | REAL | SPEED | RESULT |
| :---: | :---: | :---: | :---: | :---: |
| A | F (1) | F (1) | F (1) | $\mathrm{ABS}(1-1)+\mathrm{ABS}(1-1)+\mathrm{ABS}(1-1)=0+0+0=0$ |
| B | U (2) | U (2) | M (3) | $\operatorname{ABS}(2-2)+\mathrm{ABS}(2-3)+\mathrm{ABS}(2-3)=0+1+1=2$ |
| C | F (1) | U (2) | O (4) | $\mathrm{ABS}(1-2)+\mathrm{ABS}(1-4)+\mathrm{ABS}(2-4)=1+3+2=6$ |

This shows that Horse A would get the best trip, followed by Horse B and then Horse C. If you want to live on the edge, you can also compare the FUMO styles to the track bias and assign points to each horse. In the above example, if an $\mathbf{F}$ style was the track bias, then Horse A would get 3 bonus track bias points, and Horse C would get 1 track bias point.

So that's how you can create your own pace/trip lines. Understanding where a horse is positioned AND whether it's an advantage or disadvantage is a powerful tool for your handicapping.

