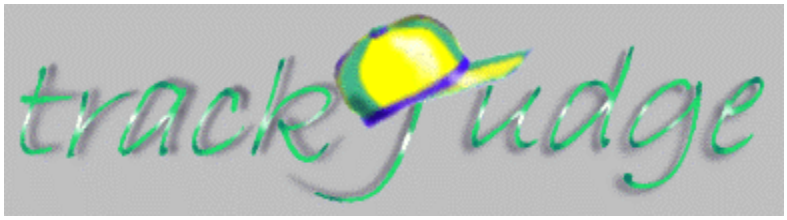


Introduction To Track Judge

Philosophy of the Track Judge Reports

Track Judge is designed to present a comprehensive, multi-factored approach to a race in the most concise format possible. Proprietary databases containing data unavailable in any other program are linked to today's race data to present data only when it is appropriate to today's situation. The major areas addressed by the program include:

?? Speed

?? Breeding

?? Running Style and Position

?? Trainer Data

?? Class factors

The Track Judge reports are highly dependent on data provided by Handicapper's Data Warehouse (HDW). Jim Cramer of HDW has developed a superb speed rating that is used exclusively in Track Judge. Jim has also developed the Running Style / Position (RS/Pos) school of handicapping, which is described in detail in Seminar.txt later in this report which must be read in conjunction with this manual.

Track Judge is a statistical program which calculates the win, place, and show probabilities of every horse in the field, given the distance, surface, relative ranking of early, middle, and overall speed, running style of the horse, and running styles and ranks of the other competitors in today's race. There is very little theory in these reports. The reports present statistical reality based on all the races run in the country at similar conditions.

To repeat, the database upon which these reports are based includes all the races run in the country in the past for which HDW provides Equibase Data.

Speed Ratings

Jim Cramer's Speed ratings are carefully constructed with special attention to track to track variants. I have found them to be the best I have ever used.

Breeding Data

Track Judge includes unique distance-specific sire proficiency indices, which describe how the progeny of any sire has performed at today's specific distance. This data is very important at any distance, but especially helpful at unusual distances of 5.5, 7, 8, and 9 furlongs, which require special speed and stamina balance.
The well regarded Tomlinson mud-breeding ratings are presented for every race, and turf-breeding ratings are presented for turf races

Running Style / Position Data

The RS/Pos data is the foundation of the program. This data attempts to describe how a horse will position himself at any point in a race. When combined with speed rating data, it is possible to project with great accuracy where each horse will be found at each call in a race, as well as the win, place, and show probability of each horse, based on how this horse fits in today's field.

Trainer Factors

Trainer pattern data, both positive and negative, is presented when it is appropriate to today's race. The win percent and profit or loss is presented when it is significant. Mainstream trainer pattern data sources present win % and roi for most trainer patterns. The Track Judge trainer data also adjusts the horse's oddsline when appropriate. Given the fact that the database used by Track Judge includes all the races, it is possible to develop an extremely accurate oddsline for any horse, and to determine when a trainer factor helps or hurts a horse's chances.

To illustrate the trainer pattern oddsline adjustment, consider mythical trainer Emilio Alonzo. When Mr. Alonzo's horses return from a layoff, they win at a rate of 25%. This is a very good rate, but it bears further inspection. Suppose by speed and class considerations, the horses returning from a layoff would be expected to win 25% of their races. Then the 25% win rate off a layoff is meaningless in this situation. Suppose however, that the horses by their speed and class would only be expected to win 15% of their races, but actually win 25% of their races. The layoff pattern here is very significant, as it improves the win probability by 10%. The Track Judge reports recognize when a trainer factor improves or worsens a horse's win probability, and denote this by the symbol + for positive factors, and - for negative factors.

Certain trainer patterns show high place or show probability. These are denoted when appropriate. These horses are often overbet horses which are pointing for other races, or the trainer is placing his horses higher than their ability. These horses are bad win bets, but good bets to complete exactas and trifectas with longshots on top.

Class Factors

The EPS (earnings per Start) are calculated and ranked for the horse's lifetime, on turf, and at today's distance.

The Track Judge Report

Let's get started with the primary report in the program, the combined report. There is a lot of data in this report, and it will take some time to get used to the format. The report is presented in projected speed rating order, so pay attention to the top 3 horses in every race.

```
08/04/99 SAR  8  8.5F Turf     Purse 47.0k     NW3
                 3 &up
     Race Configuration:   Early     Total
                        1   2   3   1    2
                        S   PS  PS  S    S


Program
(Post)                                                            Experience/Sire
 Post % Horse     |Odds Spd  E  H  S Win Plc Sho Jt|EPS|Eff/Tom|Sts  W   P   S
__________________|________________________________|___|_______|_________________
 3  |+Forbidden App| 5/2|  S  1  1  1|.24 .18 .12 .11.| 2|    21| L 10   3   3   3
( 2) Clement Ch 10| 3.3| 94  95 1  1|  *   *      6.5| 2| 2E 48| D  4   1   2   1
  4| Santos Jos   | 5.7| 94  1       |                | | 7M 30|
  +|  ship+ -.18 20% ship plc 23%grass+ -.07 22%      | 3| 9T 28|    9   3   3   3

 8 |+Golden Dice   | 3/1|  S  7  7  2|    .28 .22 .13:10|    22| L 14   3   3   2
( 7) Mott Willi  7| 3.0| 93  93 2  1|     *   *  5.3| 4| 7E 35| D  3   1       1
 17| Bailey Jer   |    | 91  2       | -15  14       |  |10M 24|
   |  layoff+ -.22| 26%|grass+ -.15 26%              |11| 1T 36|   14   3   3   2
   |              |    |             |               |  |      |
```

The Track Judge report is divided into 7 logical sections. Each Section has 4 lines of data.

The sections are:

Post   Identifiers Odds RS/POS Speeds Probabilities Class- Breeding Experience

Each section presents important data if it is relevant to today's race. Trainer patterns which do not apply today are not presented. Turf data is not presented for dirt races.

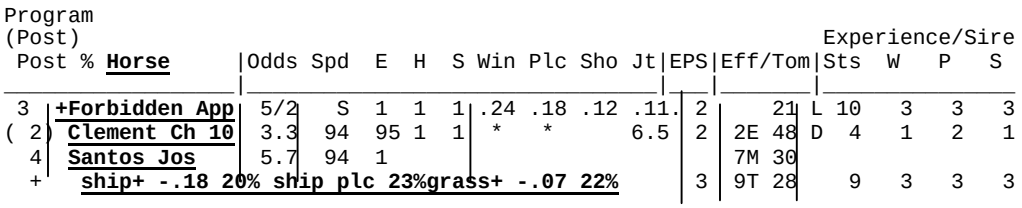
Starting on the left the sections are:

Post Position data

```
Program
(Post)                                                            Experience/Sire
 Post % Horse     |Odds Spd  E  H  S Win Plc Sho Jt|EPS|Eff/Tom|Sts  W   P   S
__________________|________________________________|___|_______|_________________
 3  |+Forbidden App| 5/2|  S  1  1  1|.24 .18 .12 .11.| 2|    21| L 10   3   3   3
( 2) Clement Ch 10| 3.3| 94  95 1  1|  *   *      6.5| 2| 2E 48| D  4   1   2   1
  4| Santos Jos   | 5.7| 94  1       |                | | 7M 30|
  +|  ship+ -.18 20% ship plc 23%grass+ -.07 22%      | 3| 9T 28|    9   3   3   3
```

Line 1: Program number
Line 2: Post position (in parentheses) if not the same as program number.
Line 3: Winning percent from this post position at today's surface and distance
Line 4: Form Indicators * indicates recent 5 F workout in good time or race within 7 days, + indicates up close at every call in last race.

Identifiers



Line 1: Horse Name
Line 2: Trainer, followed by projected break position of the horse.
Line 3: Jockey, followed by Jockey-Trainer Win% if significantly high or low
Line 4: Trainer patterns with Profit and win%

The Track Judge trainer patterns reflect the past year and meet data, and require at least 20 starts before a pattern is calculated. The data is presented only when it is relevant to today's race, and only if it is significantly better or worse than average.

Trainer Pattern Symbols:

!	High ROI
$	High ROI and win%
?	Loss of 60% or greater
<	Low win % of 5% or less
+	Improved Win% of 10% or Greater from expected
-	Decreased Win% of -10% or Greater from expected.

The trainer pattern data is presented as follows:

Pattern symbol profit% win%

ship+ -.18 20% ship plc 23%grass+ -.07 22%

This line is read:

When shipping, this trainer wins at a rate 10% higher than expected (+ symbol), returning a loss of 18% per dollar bet **(-18**), winning at a rate of 20% of starts. When shipping, the trainer's horses come in second **23%** of the time. On grass, the trainer wins at a rate more

than 10% better than expected (+), returning a loss of 7% per dollar bet (**-.07**), winning 22% of grass starts.

The trainer patterns are self-explanatory.

Debut and debut2	first or second lifetime start
Layoff and layoff2	first or second starts after a layoff of 30 days or more
SR and RS	Sprint to Route and Route to Sprint

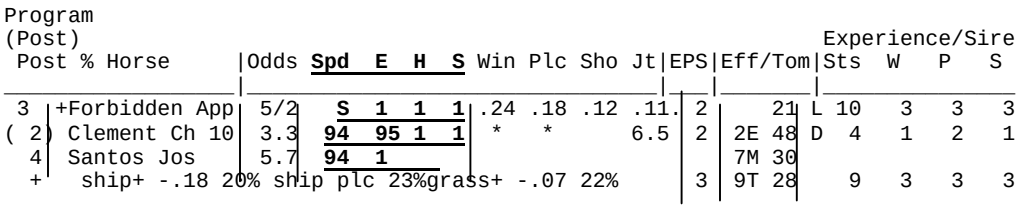
Odds

```
Program
(Post)                                                                  Experience/Sire
 Post % Horse      |Odds Spd  E  H  S Win Plc Sho Jt|EPS|Eff/Tom|Sts  W   P   S
___________________|_____________________________|___|_______|_____________
 3  |+Forbidden App| 5/2   S  1  1  1|.24 .18 .12 .11.| 2|    21| L 10   3   3   3
( 2) Clement Ch 10 | 3.3   94  95 1  1|  *   *      6.5| 2| 2E 48| D  4   1   2   1
  4| Santos Jos    | 5.7   94  1      |                |  | 7M 30|
  +   ship+ -.18 20% ship plc 23%grass+ -.07 22%      | 3| 9T 28|    9   3   3   3
```

Line 1: Morning Line
Line 2: Speed and class derived oddsline
Line 3: Speed-Class oddsline as in line 2 modified by trainer factors.

The trainer modified oddsline looks at all the ancillary factors such as trainer data, breeding, and post position and adjusts the basic speed and class derived oddsline on line 2.

RS-Pos data and Speeds



Line 1: Running Style – Position, Half rank, Speed Rank

Jim Cramer of Handicapper's Data Warehouse has developed the Running Style- Position method of Handicapping. The RS-Pos designation of the horse is presented here, along with the horse's ranking in best speed to the half mile, and last race speed rank.
This horse is designated as a **S 1 1 1** runner. The S indicates a sustained runner, one who is in the back of the pack early, and makes a late move only. The three 1 figures represent the ranking of the horse in best **E**arly (speed to the first quarter) **H**alf (speed to the first half) and overall **S**peed rating of the last race. This horse has the fastest quarter, half, and overall speed rating in this race. He is a serious contender to win.

Line 2: Speed figures

The last race Cramer Speed rating, median speed rating of the past 3 starts at today's surface and ranking, difference to the next horse's last race speed rating

The last race speed rating of this horse was a **94**. The median of the 3 most recent starts on today's surface was a **95**, which is first in today's field. The final figure in this group is a **1** which indicates that this horse's last race speed rating is 1 point faster than his closest competitor.

The most predictive speed rating of any horse is the last race speed rating. If the last race was different in surface or distance structure from today's race a letter code is appended to the speed rating.

The codes are:

Code	Translation - Last race was:
d	Dirt
t	Turf
s	sprint
r	route
o	off track (muddy, sloppy, or good)

Example:

95 o dirt track sloppy
84 s sprint, today a route
97 t turf, today on dirt

Horses do have bad trips, dislike mud, get parked 5 wide, etc., and the last race speed rating does not always reflect the horse's ability. For this reason, the median speed rating of the 3 most recent starts on today's surface is presented.

The median is the middle of 3 ratings. In statistics there is a concept called "regression to the mean." If a horse runs speed ratings of 84,95,88 in order, he is more likely to run closer to the median of 88 than to 95 today, unless he is a rapidly developing 2 year old. For this reason, the median speed rating is presented along with its rank in the field.

Line 3: Horse's best speed rating at today's surface and distance and ranking. In this case, a **94**, ranked first (**1**) in today's field. If the horse does not have a race at today's exact distance, the best speed rating at today's distance structure (route or sprint) is presented with a tilde (~) to indicate approximate distance.

Probabilities

```
Program
(Post)                                                                  Experience/Sire
 Post % Horse      |Odds Spd  E  H  S Win Plc Sho Jt|EPS|Eff/Tom|Sts  W   P   S
_____________________|_____|___|___|___|___|___|___|___|_____|_____|_____|_____|_____
 3  |+Forbidden App| 5/2   S  1  1  1| .24 .18 .12 .11.| 2 |    21| L 10   3   3   3
( 2) Clement Ch 10  | 3.3  94  95 1  1|  *   *      6.5 | 2 | 2E 48 D  4   1   2   1
  4  | Santos Jos    | 5.7  94  1      |  10             |   | 7M 30
  +    ship+ -.18 20% ship plc 23%grass+ -.07 22%      | 3 | 9T 28    9   3   3   3
```

Line 1: Win, Place and Show probabilities for this running style- position-speed at this surface and distance. The probabilities of this horse are **.24**, **.18**, and **.12** for win, place, and show.
Line2: Asterisks denote high preferential finish positions. Certain running style-position horses finish second or third but rarely win. An asterisk under the win, place or show probability emphasizes this face.
Line 3: Differential win, place, or show probability.

This differential probability indicates when horses with today's running style, early rank and speed rank face an advantage or disadvantage because of the running styles of other runners in the field. The number indicates how much better or worse a horse is predicted to do based on the makeup of running styles in today's field when compared to the overall win, place and show probabilities for a horse of this type in all races at this surface and distance. I have inserted a **10** here for illustration.

At the far right of the probability section is a section labeled “jt” which represents the joint probability derived from the joining of the speed-class-trainer pattern derived oddsline and the running style-position oddsline. Line 1 shows the adjusted win probability of the horse as **.11** accounting for all horses in the field. The sum of all adjusted probabilities is 1.0 .

Line 2 converts this probability to odds, corrected for track take. This odds value should reflect the toteboard odds, and is **6.5** in this case. If it is lower than the tote odds, an **overlay** is present. If it is higher than the tote odds, an **underlay** is present. **This is my betting oddsline**.

Horse Interaction Probabilities

The database of RS/POS data can be segmented in many ways. One of the objectives of this program has been to determine how horses interact when different horses of certain running styles come together in a particular race.

This report was written to print on a standard printer at 80 columns wide and 66 lines per page. Given the limitations of this format, and the need to fit a lot of information on the page, I have resorted to abbreviations where needed.

There are three possible symbols that follow the joint probability. These symbols define how tight the pattern match is between the horse’s Running style, early speed rank and overall last race speed rank and the entire database.

A blank or no symbol indicates that the pattern match is for early rank and speed rank only, with no running style data. This is the least specific match.

A period **.** indicates that the match is for the running style, early rank, and speed rank.

A colon **:** indicates the match is for horses of the same running style, early rank, and speed rank in races composed of similar running styles. This is the most specific pattern match, and you should really pay attention when you see a horse with a high win probability with the colon **:** symbol.

Class

```
Program
(Post)                                                                                  Experience/Sire
 Post % Horse      |Odds Spd  E  H  S Win Plc Sho Jt|EPS|Eff/Tom|Sts  W   P   S
___________________|_____________________________|___|_______|_____________
 3  +Forbidden App| 5/2   S  1  1  1 .24 .18 .12 .11.| 2 |    21| L 10   3   3   3
( 2) Clement Ch 10| 3.3  94  95 1  1  *   *      6.5 | 2 | 2E 48| D  4   1   2   1
  4  Santos Jos    | 5.7  94  1                      |   | 7M 30|
                   |                                 |   |      |
```

```
  +   ship+ -.18 20% ship plc 23%grass+ -.07 22%      3  9T 28    9   3   3   3
```

EPS (Earnings per Start) is calculated, ranked, and presented as follows:

Line 1: EPS Rank lifetime
Line 2: EPS rank at today's surface and distance
Line 3: blank
Line 4: EPS rank on turf (only in turf races)

This horse ranks second (**2**) in EPS lifetime and at today's surface and distance, and third (**3**) on turf .

Breeding

```
Program
(Post)                                                                Experience/Sire
 Post % Horse      |Odds Spd  E  H  S Win Plc Sho Jt|EPS|Eff/Tom|Sts  W   P   S
___________________|_____________________________|___|_______|_____________
 3  |+Forbidden App| 5/2   S  1  1  1|.24 .18 .12 .11.| 2 |    21| L 10   3   3   3
( 2) Clement Ch 10 | 3.3  94  95 1  1|  *   *      6.5| 2 | 2E 48| D  4   1   2   1
  4  Santos Jos    | 5.7  94  1      |                |   | 7M 30|
  +   ship+ -.18 20% ship plc 23%grass+ -.07 22%      | 3 | 9T 28|    9   3   3   3
```

A breeding and experience index is calculated for several situations

Line 1: Sire distance-breeding index
This is a rating of the performance of all the progeny of this horse's sire at today's distance.
Line 2: Horse efficiency index.
This number rates the horse's in the money performances at today's distance
Line 3: Mud Breeding
The Tomlinson Mud breeding number (last digit left off) i.e. Tomlinson of 360 is printed as 36

Line 4: Turf Breeding
The Tomlinson Turf Breeding Number (last digit left off)

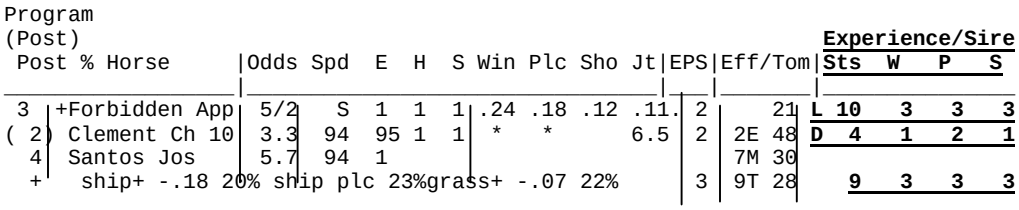
The Breeding and experience indices are calculated in roughly the same way. The Tomlinson mud and turf breeding numbers reflect the sire and damsire data, the distance index reflects the sire only, and the horse index reflects the horse's performance at the distance (and on turf if in a turf race).

The average sire-distance breeding index is 18 with a standard deviation of 8. This means that horses with a sire-distance-breeding index between 10 and 26 should do about average at today's distance. Pay special attention to horses very well bred for the distance (26 or higher) and discount the chances of horses poorly bred for the distance (10 and lower). This horse has a rating of **21** which is about average. Once a horse has had several starts at the distance, ignore the sire distance index and pay attention to the

horse efficiency index on line 2. The sire distance index and the horse efficiency index are calculated in the same way.

Pay special attention to horses who are odd distance specialists. Certain horses excel at 7, 9, or 5.5 furlongs, but choke at 6 furlongs. Similarly, other horses are 6 furlong sprint specialists but are incapable of 7 furlongs, for example Kelly Kip.

Experience



Program (Post) Post	%	Horse	Odds	Spd	E	H	S	Win	Plc	Sho	Jt	EPS	Eff/Tom	Experience/Sire Sts	W	P	S
3		+Forbidden App	5/2	S	1	1	1	.24	.18	.12	.11.	2	21	**L 10**	**3**	**3**	**3**
(2)		Clement Ch 10	3.3	94	95	1	1	*	*		6.5	2	2E 48	**D 4**	**1**	**2**	**1**
4		Santos Jos	5.7	94	1								7M 30				
+		ship+ -.18 20% ship plc 23%grass+ -.07 22%										3	9T 28	**9**	**3**	**3**	**3**

The Starts – Win – Place –Show record of the horse is presented in 4 lines

Line 1: L	Lifetime
Line 2: D	Distance –surface
Line 3: M	wet dirt tracks
Line 4 T	Turf

Projected Position Report

This report shows the projected position of a horse based on the running style-position data at today's surface, distance, and post position, adjusted by running styles of adjacent horses in the race.

```
Track Judge Projected Position Report (c) 1998 by CAJ Software Inc.
GP  02/28/98  Race  9
 8.5 f Turf           Brk   1/4 Call  1/2 Call  3/4 Call   Finish    W% P% S%IM%

1   STRATUS  S! 12 11 12
2   EAST OF  SS  9  9 13  -8---    |  8--     |  -8---    |---6--   | 2 11  5 18
3   KIN OF F Ep! 5  3  1
4   RECOMMEN S   2  1  6      --3- |       3- |      --3- |    --3- |17 24 20 61
5   THE KAIS S   6  2  8     6--   |     5-   |     -5--  |    -4-- | 8 25  8 41
6   SILVER F S   8 10  7   8----   |*----     | -9----    |-8-----  |14     9 23
7   GUDAI MI Ps! 4 13  5
8   BUFF     S  13 12  4
9   MATT'S B ss  7  3 11   -7--    |   7--    |   -7--    |   --4-  | 7  7 21 35
10  WE CONCU E' 10  8  9
11  MEDFORD  ep  1  7  2      ---2-|        2-|     ---3--| -7--    | 7     7 14
12  FLAMING  Ep'11  3  3
13  BRILLIAN ss  3  3 10     -5--- |     5--- |     --4-- |   --4-  |17  6 22 45
```

The line is interpreted as follows...

```
4   RECOMMEN S   2  1  6      --3- |       3- |      --3- |    --3- |17 24 20 61
```

Think of the --3- | symbol as a probability density box, where you will find the horse 50% of the time at any particular call.

Each - symbol represents one position, and the number printed represents the most probable position the horse will take at each call of the race.

The symbol group --3- is read as "This horse will most likely be 3rd at this call, and will be found between 5th position and 2nd position 50% of the time.

The win, place and show probabilities in this report are for the running style, early rank, speed rank, influenced by the running styles of other horses in the race at today's surface, distance and post. Any trainer angle or breeding data is not included.

Pay attention to horses with high in the money % (IM%).

Putting It All together

When handicapping a race with the Track Judge Reports, I do the following:

First , I note the distance, surface and class of the race.

Second, I make a quick scan down the page looking for asterisks under the win, place or show probability numbers for horses whose running styles tend to finish in a certain position preferentially.

Third, I look at the breeding for surface and distance and efficiency indices for all horses. This is absolutely important on turf and at distances of 5.5, 7, 9, and higher furlongs.

Fourth, I review the trainer patterns.

Fifth, I project the running of the race.

I look at the top three early ranked horses and ask if they have enough overall speed and breeding to win.

I anticipate pace duels, lone E horses, and closing horses by looking at the projected position report.

I look closely at projected break position and post position for the E and EP horses. These horses are disadvantaged by outside posts and poor breaking ability, and often are beaten favorites if not placed correctly in today's field.

I look closely at the Jockey and determine if the Jockey's preferred riding style matches the Horse's preferred running style.

If there are any questions, I refer to the Racing Form, track program, or Past Performance data from HDW to look at the actual past performances.

Finally, I review the odds and compare the tote odds with my final joint oddsline. There is space on the Track Judge report just under the final oddsline to write the tote odds for comparison.

As the race is run, I write the running order for each call down on the Track Judge report for later review to see if the race unfolded according to expectations. After the race, I circle the win, place, and show probabilities of the win, place, and show horses respectively, and look for what features were important in each runner.

There are many races which develop as planned by RS/POS data, and many races in which other factors take precedence. Learn from your own experience when to pay attention to the RS/POS data, and when to put more emphasis on other factors. The only way to do this is by experience.

In 7 and 9 furlong races, I pay particular attention to the sire distance index, and I use this data to eliminate horses from the win position as often as I use it to qualify contenders. One of my favorite plays occurs in a race at 7 or 9 furlongs with a favorite who has a sire distance index of .12 or worse, with several other horses who are well bred for the distance. The play here is to use the fast favorite under the well bred horses in an exacta, or throw out the favorite and box 2 or 3 well bred horses, if the odds are acceptable. You will be burned in this play if the favorite has an overwhelming speed advantage over the well bred horses.

You will find that you may use the RS/POS data to eliminate horses as often as you use the data to include horses as contenders. Learn when a contrary approach is helpful. Be creative and try to visualize the entire race from start to finish using the projected position report.

A word on betting…

All players have their own betting style. I find that using the oddsline in this program, I can frequently narrow a race to two or three valid contenders. I use a dutching program for win bets frequently with excellent results. I also pay great attention to horses projected to place or show with high probability. If the odds and pools are acceptable, I will bet these horses to place or show, but not to win. These horses are also best used in bottom positions of exactas and trifectas.

Develop your own betting style. The beauty of this report is that different users pick up on different patterns and use them to advantage.

Charles A. Judge
9/29/99

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