

THE FOLLOW UP

ADVANCED HANDICAPPING MANUAL FOR
SPECIAL ACCESS GROUP ONLY

FACTOR ANALYSIS

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PART I

BY

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in association with

PIRCO



PARIMUTUEL INFORMATION AND RESEARCH COMPANY

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FORWARD

We have said it before: Nothing we do at the Institute is carved in stone. Racings situations, if not racing itself, are subject to constant change.

FLUX is here to stay.

The sole purpose of our research and instruction has been to make our clients WINNERS. All theory, concept or personal whims about Thoroughbred Racing have, therefore, been discarded in favor of an output designed to select winners. This is why our texts have never been sent to the typesetter but always Xeroxed so incidental or major changes can be made when circumstances dictate.

The fundamental truths presented in our first manual are just as predictive of winners as ever. Only our goals have changed. Instead of seeking a 63% win proficiency we now strive for 80%. We are not vain as to think that a 63% methodology will produce 80% winners. So, spurred on by our clients from coast to coast and in Canada (and with their help) our ongoing research has developed: FACTOR ANALYSIS. Factor Analysis does not supersede the content of the Basic Manual, it SUPPLEMENTS it. Without a thorough understanding of the basic material, Factor Analysis becomes like a space ship without a launching pad. But WITH that understanding the advanced techniques presented herein offer new horizons of unlimited potential. In the vast wasteland of 'Horseplayers' there are but a precious few genuine HANDICAPPERS. I am proud to say that the Charter Members of PIRCO, whose names appear on the back cover, are among the handicapping elite. They achieved this status only partly from the Method. They themselves provided the essential ingredients of fortitude, diligence and insight - and, above all - a determination to be a WINNER.

If YOU will emulate their attitude, you can duplicate their WIN proficiency.

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While preparing this manuscript I received a letter from a long-time client telling me that he could no longer place his customary sized wagers on horses listed at higher than 2 to 1 at the legal Race Books in Las Vegas. So, after over 20 years of residency in Nevada, he moved to California to continue his winning ways at the tracks, where management cares not who wins or how much. He is in his seventies and he is a winner. It can and DOES happen. We have a client who formerly operated the Race Book at a major Las Vegas Hotel. He says it can happen. We have another client closely associated with regulatory procedures in Nevada. He says it happens all the time. It has happened to me. It happened to Darell Martin, our original Research Director, and it can happen to YOU. I've had many clients call me saying, with glee. "Doc, guess what? I was just cut off by my bookie!" It comes as no surprise. Illegal bookies are the first to desert a winner. In Damon Runyon's time there may have been honor among this breed, but no more. ~~All of my clients who make a full time living from handicapping~~ apply strict money management procedures. So, before we we examine the way to win more RACES, let's scrutinize the profits available at your PRESENT level of proficiency. Play with a SMALL working bank, \$300 is enough. It will grow surprisingly fast if you adhere to wagering 10% of your bankroll with a fixed 10% minimum. Your first bet is \$30. 60% goes on the LOW ODDS horse, (\$18). 40% on the HIGH ODDS horse. (\$12).

"FAVORITE HORSE PLAY," BET = 10% OF BANKROLL
SAMPLE READ OUT

\$ 300.00 Bankroll - Dutching 60-40

RANDOM SEARCH

AFTER 21 ROUNDS AND A
 STARTING BANKROLL OF 300

STRAIGHT	NET=320 % = 105
UNIT	NET=536 % = 178
10 %	NET=317 % = 105
16 %	NET=294 % = 98
SQ RT	NET=325 % = 108
WIN% --55	

AFTER 21 ROUNDS AND A
 STARTING BANKROLL OF 300

STRAIGHT	NET=435 % = 145
UNIT	NET=516 % = 172
10 %	NET=1009% = 336
16 %	NET=1877% = 625
SQ RT	NET=562 % = 187
WIN% --65	

AFTER 21 ROUNDS AND A
 STARTING BANKROLL OF 300

STRAIGHT	NET=435 % = 145
UNIT	NET=519 % = 173
10 %	NET=1014% = 338
16 %	NET=1891% = 630
SQ RT	NET=564 % = 188
WIN% --65	

AFTER 21 ROUNDS AND A
 STARTING BANKROLL OF 300

STRAIGHT	NET=563 % = 187
UNIT	NET=630 % = 209
10 %	NET=2848% = 949
16 %	NET=8075% = 2691
SQ RT	NET=892 % = 297
WIN% --70	

I first realized that winning only 63% of the races played, betting two horses, could be greatly improved upon when my own proficiency began to rise as a result of working problem races sent in by YOU, the client, from tracks all over the United States and Canada. By helping you with your problems, my proficiency rose to 80% through long enough periods to satisfy me that no fluke was involved. This belief was further supported by the fact that mutuel prices did not diminish with the higher win proficiency, but, rather, INCREASED.

I attributed the pleasant result to FACTOR ANALYSIS. Subsequently, more and more clients, irrespective of geography, began reporting consistent results in the 70+ % range. They too were applying FACTOR ANALYSIS. After thoroughly digesting the material in the main body of the Manual, they began concentrating on the supplemental content, pages 107 through 112.

They were doing an analysis of what factors in their read-outs, or handicapping flow sheets were WINNING at their track. In reality this is nothing more than using the statistical procedure known as linear regression. They, and I, were applying regression on a daily basis to know what was happening NOW that caused horses to win.

Professional mathematicians and students of the Scientific Method will tell you that such short term regression is not valid; that true regression involves at least 450 instances surveyed under a uniform criteria. This is true in the study of socio-economic trends or in the testing of metal stress, but apparently not so in the handicapping of Thoroughbreds. What happened YESTERDAY is more important, than the sum total of what happened at last years meet. I state this not to challenge the established laws of statistics. I say this because in our own special field, IT WORKS!

Factor Analysis-Defined:

In our velocity analysis we measured the incremental and final times of contenders AGAINST each other. In Factor Analysis we expand our measurement to include the track; so now we are rating *the* contenders not only against each other, but against each individual tracks win requirements.

Factor Analysis lets us explore precise daily and track to track variants. It shows us how to measure Turf Races against those on the dirt and how to handle dirt horses going to the turf with no turf record along with Turf Horses making their first dirt appearance. With factor analysis we no longer have to rely on old, often outdated distance adjustment or track equalization figures, nor are we saddled with last year's par times. By a simple evaluation of CURRENT results charts we will be the beneficiaries of the most important statistic in RACING: CURRENT INFORMATION.

We need only file each day's current information and soon we have a reservoir of past information with which to compare each day's new entries.

HOW LONG DOES IT TAKE?

This is the first question everyone asks me. My answer is that I, personally, do it each morning from the results charts published in either Los Angeles newspaper, over the course of drinking three cups of coffee. There are nine races carded each day at Southern California tracks. I profile all of them except the maidens. That's seven races per day at two and one half minutes each. That's less than 18 minutes per day. Compare that with the time it takes to make daily variants in the manner prescribed by the conventional methods.

TRIP HANDICAPPING

The current "go phrase" in racing, especially on the East Coast, is TRIP HANDICAPPING. This does not mean

handicapping while under the influence of narcotics, though many of the horses taking the 'trip' will be on Bute or Lasix. Trip Handicapping falls into two catagories. The first and classic definition is to view the race from gate to wire through binoculars and take notes on any deviations from normal. If a horse goes wide or is blocked or changes stride or gets an open lane on the rail and keeps it, etc. etc. In short, observing everything that happens to any one, or all, of the horses during the running of the race. Then going to the Public TV sets at the track and reviewing the stretch run and recall, all the while taking notes.

I've overheard some interesting arguments between Trip Handicappers who couldn't agree on what happened. It was like listening to the testimony of three witnesses to an accident. No recall exactly matched the other and often the descriptions were so far apart that one wondered if they were all talking about the same accident. Some trip handicappers own Home Video Recorders and tape the replay of the day's races that are broadcast in some of the larger markets. Their machinery gives them the ability to stop-motion a race at any point so that can re-view any incident that may have caused a given horse a bad trip. Notes taken from such reviews and observations are then filed and applied to the handicapping process when one of the animals in the race runs again. All in all it's quite a trip.

The second, more relaxed definition of Trip Handicapping is what we have been doing all along: analyzing the progress of contenders through the course of their races by reading the past performance and results charts in the form and using feet per second velocity to determine the smoothness, dullness or unevenness of the horse's trip. We know, for instance, that if a speed horse on the rail runs an untypically slow first fraction followed by a second fraction that was faster than the first, that the horse was almost certainly impeded at the gate or in the first few yards of the race.

By profiling a horse's past record via the Pace-Form-Class procedure described in the Basic Manual, we can tell whether a poor performance was attributable to problems encountered during the race or because the animal was tested by a pace factor against which it never does well - or simply on the downside of its form cycle. Our research has provided many weapons. In order to make optimal use of the tools at hand, however, it is essential that we know how to read and evaluate pace lines. Proper pace line selection for rating contenders is tantamount to winning with the method. A capacity to understand the meaning of relationships between several different pace lines is of almost equal importance. To offer further insights and instruction into this all-important area we have provided you with three hours of audio-tape cassettes featuring about a dozen PIRCO members who will take you through the processes THEY use in pace line selection and in eliminating non-contenders. To qualify for charter-membership in PIRCO a handicapper must be using the Methodology to garner a consistent win average in excess of 70%, and a mental set that is devoid of falacious myths that seem to plague most horseplayers.

Listen now to the tapes and then we'll do a short written review:

In listening to the tapes the ONE thing that stood out was that each of these WINNERS evaluates a contender's LAST race, and will not go beyond it to find a pace line unless a valid reason is apparent. They look at an animal's BETTER races to learn what it CAN do, but at the latest race to see what it DID do. There is a keen relationship between what a T-bred has achieved in the past and recent effort. To view this relationship simply do this:

Last Race	<u>1 Fr.</u>	<u>2 Fr.</u>	<u>3 Fr.</u>	<u>2nd Call</u>	<u>Total/4</u>
Last GOOD Race					

Let us say that the pace of the last race at a Mile-1/16th was 46 - 72:2 - 1:43.4 and that our horse was beaten by 4 , 3 3/4, **6**

A 8.5 FURLONGS LAST OUT

HORSE 1					
RACE 1	<u>1</u>	<u>2</u>	<u>3</u>	<u>BASIC</u>	<u>TOT/4</u>
RACE	57.39	58.00	52.55	54.70	54.84
HORSE	<u>56.52</u>	<u>58.09</u>	<u>51.83</u>	<u>54.18</u>	54.18
PACE RATING	98.84			DIFFERENCE	.66
<u>COMPOSITE RATING: 5355.1512</u>					

And in its last GOOD race at a Mile and 1/8th, the pace was 47,73,110. Beaten lengths were, 1, 3/4 and a **NK.**

A 9 FURLONGS LAST *Good*

HORSE 2					
RACE 1	<u>1</u>	<u>2</u>	<u>3</u>	<u>BASIC</u>	<u>TOT/4</u>
RACE	56.17	50.77	53.51	54.25	54.55
HORSE	<u>55.96</u>	<u>50.87</u>	<u>53.69</u>	<u>54.14</u>	54.48
PACE RATING	99.92			DIFFERENCE	.07
<u>COMPOSITE RATING: 5443.6416</u>					

PAGE COMPARISON GRAPH

RACE 1 2ND CALL ONLY

~~LAST~~
~~LAST GOOD~~

Now what we are seeing is NOT a horse beaten by 6 lengths last out, but a contender who ran a FASTER first fraction and a FASTER 2nd Call than it did in the race where it was beaten by only a Neck. This horse is COMING IN to form. To determine whether it can win today, take a look at the Pace of the Race pace of the Horse read-out of the race immediately prior to the good race. Did it look like this?:

A 8.5 FURLONGS RACE BEFORE GOOD RACE

HORSE 2					
RACE 2	1	2	3	BASIC	TOT/4
RACE	57.14	50.38	52.88	54.70	54.86
HORSE	56.93	50.19	52.96	54.49	54.72
PACE RATING	99.79			DIFFERENCE	.14
COMPOSITE RATING:	5460.5088				

If it did, LOOK FURTHER. What are the closing fraction f/p/s times of Today's top contenders? Are they significantly faster than 52.96? What about the 2nd Call? Will this animal be run-against a 2nd call velocity exceeding 54.49? IF the answer is NO to Either ONE of these questions, it is a contender. Because of its early speed last out I rated the horse off its last GOOD race. It won with the following line:

A 8.5 FURLONGS THE WINNING EFFORT

HORSE 3					
RACE 2	1	2	3	BASIC	TOT/4
RACE	56.90	50.77	52.88	54.70	54.8
HORSE	56.84	50.83	52.92	54.68	54.78
PACE RATING	100			DIFFERENCE	.02
COMPOSITE RATING:	5478				

We analyzed not just one, but THREE, factors when selecting this horse's pace line. 1: We determined the horse's condition by noting early speed last and compared this race with the one immediately preceding its last GOOD race. 2: We looked at the Early and Late fractional velocities of today's competition. The ones that were better early died after the second call. The ones with good closing fraction velocities had no matching 2nd call velocity, SO, 3: We rated the horse off its last GOOD effort. The horse rewarded us with an \$18.00 mutuel.

The moral is always make a close inspection of a horse's LAST race. It will tell you something, even if it's only that the animal is hopelessly out of form against today's contention. It might reveal a HIDDEN fraction, however, which will allow you to go back farther to select your pace line.

It's all on the audio tapes, but it bears repeating: DO A QUICK CLASS study of virtually every horse. You don't have to put it through the computer; do it in your head or on a scratch pad or by hand calculator. Check Average Purse values. They mean little by themselves in predicting winners, yet a contender with an A.P.V that is 50% or more above today's purse IS an animal you must analyze further before throwing out.

If there is any question in your mind about how to figure an A.P.V., see page 29 of the Yellow Manual.

Let me repeat in writing something I said on the tapes. You no longer have to follow the Manual's injunctions with regard to daily variant. You can win 63% the old way but not much over. More and more throughout the country, track management is artificially altering track surfaces from day to day by alternate use of heavy watering and hard scraping. Such manipulation is prevalent at tracks with carry-over, progressive exotics such as the Pick-Six. Most of the Eastern tracks are free from this problem. The vagaries of weather in the East and Mid-West are the cause of fluctuating variants, so the effect is the same.

You are no longer satisfied with 63%, so let's

Move on to the subject of DAILY VARIANT:

★ DAILY VARIANT

The conventional procedure for making daily track variants as devised by Speed Handicappers involves prodigious records and precise compilations that frequently require making two or more variants for the same day when the track surface is altered by a weather change. The need for such precision is because when using only FINAL TIME as a predictor the margin for error is almost nil. In our use of incremental times which we then COMPOUND before getting our rating figures we have a 45% margin of error tolerance. This is no figure drawn from a hat but is based on a multiple thousand sample computer study. This margin of error factor is not new. In 1956 Hugh Matheson, author, lecturer and analyst for the Daily Racing Form said that it was not necessary for the handicapper using fractional times and rate of speed (Feet per second) to be concerned with the track variant because using incremental speed wipes out much of the differential caused by the variant. In the 1970's HUEY MAHL in his very BIG little book, "The Race is Pace," stated that while the variant was the most vexing of problems to the speed handicapper it was far LESS SIGNIFICANT to the pace handicapper looking at the race in fractional segments. Huey was the first to change his mind on this subject, however. Not too long ago he asserted that mine would be the perfect method IF I would come to grips with the problem of Daily Variant. We will do that, Huey, right now:

As with any other compilation, the time factor is important to those of you who cannot spend a lot of time handicapping races. So, in answer to the ubiquitous question: "How long does it take?" I compiled the ave. daily variant for 6 furlongs, a mile and 1 1/16th and a mile and 1/8th for Aqueduct, Inner Dirt, in twenty-three minutes. Here are the read-outs:

MAKING A DAILY VARIANT AQU(10) 6 f.

TRACK# OR DRF DAILY VAR. 21

 2ND CALL 55.81
 3RD FRACTION 52.17

 PACE RATING 53.994

 TRUE SPEED 54.55
 VARIANT RATING 54.272

TRACK# OR DRF DAILY VAR. 17

 2ND CALL 56.9
 3RD FRACTION 50.36

 PACE RATING 53.64

 TRUE SPEED 54.55
 VARIANT RATING 54.1

TRACK# OR DRF DAILY VAR. 10

 2ND CALL 57.64
 3RD FRACTION 52.8

 PACE RATING 55.22

 TRUE SPEED 55.93
 VARIANT RATING 55.58

TRACK# OR DRF DAILY VAR. 25

 2ND CALL 55.7
 3RD FRACTION 51.56

 PACE RATING 53.63

 TRUE SPEED 54.25
 VARIANT RATING 53.94

TRACK# OR DRF DAILY VAR. 31

 2ND CALL 55.7
 3RD FRACTION 49.62

 PACE RATING 52.66

 TRUE SPEED 53.51
 VARIANT RATING 53.89

21-25
 .08 DIFE
 Per Point of DRF VARIANT

21-31
 .11 DIFE.

10-17
 .26 DIFE.

10-31
 .11 DIFE

17-25
 .02 DIFE

10-25
 .09 DIFE

25-31
 .14 DIFE

AQU INNER DIRT 6 f

Ave. DIFE. Per DRF VARIANT POINTS. 106

MAKING A DAILY VARIANT AQU (10) 8.5 fur.

Ave DAILY VAR. 22

TRACK# OR DRF DAILY VAR. 22

2ND CALL 52.8

3RD FRACTION 53.23

PACE RATING 53.013 (2nd CALL 3rd (50.2)/2)

TRUE SPEED 52.92 SEE

VARIANT RATING 52.97 AVE

DISTANCE
0-AC TIME S.P.S.

PACE RATING
+ TRUE SPEED

2

TRACK# OR DRF DAILY VAR. 10

2ND CALL 55.15

3RD FRACTION 51.24

PACE RATING 53.198

TRUE SPEED 53.94

VARIANT RATING 53.57

TRACK# OR DRF DAILY VAR. 25

2ND CALL 54.55

3RD FRACTION 49.11

PACE RATING 51.826

TRUE SPEED 52.82

VARIANT RATING 52.32

TRACK# OR DRF DAILY VAR. 22

2ND CALL 53.37

3RD FRACTION 50.61

PACE RATING 51.991

TRUE SPEED 52.53 SEE

VARIANT RATING 52.26 AVE

22 (AVE) = 52.61

22-25

DIFF PER VAR PT. = .09

10-22

DIFF PER VAR PT = .08

10-25

DIFF PER VAR PT .11

Ave Diff. Per VAR pt.

AQU @ 8.5 fur = .093

MAKING A DAILY VARIANT AQU (10) 9 furlongs

TRACK# OR DRF DAILY VAR. 21 (AVE)

2ND CALL 54.1
3RD FRACTION 49.75

PACE RATING 51.924

TRUE SPEED 52.57
VARIANT RATING 52.25

TRACK# OR DRF DAILY VAR. 17

2ND CALL 53.95
3RD FRACTION 50.51

PACE RATING 52.2310001

TRUE SPEED 52.75
VARIANT RATING 52.49

TRACK# OR DRF DAILY VAR. 30

2ND CALL 52.66
3RD FRACTION 49.75

PACE RATING 51.204

TRUE SPEED 51.65
VARIANT RATING 51.43

TRACK# OR DRF DAILY VAR. 10

2ND CALL 54.85
3RD FRACTION 50.77

PACE RATING 52.808

TRUE SPEED 53.42
VARIANT RATING 53.11

21(AVE.) TO 17
Ave. Per Point = .06

21 TO 30
Ave per pnt. = .09

17 TO 30 = .08

10 TO 21
Ave. per pt = .078

10 TO 17
Ave per pt = .088

10 TO 30
Ave per pt = .084

AQU @ 9 fur.

Ave. per point of DRF DAILY VAR

.08

USING THE RACING FORM
DAILY VARIANT

What's RIGHT with the Racing Form's Daily Variant? Well... Everyone knows what is WRONG with the Daily Racing Form's Daily Variant that is now found next to the speed rating in all editions. Like the speed ratings the DV is based on track records. For every fifth of a second slower than the record for a given distance a point of variant is added. No class or sex distinction is made. Thus a day with mostly Fillies and Mares or a mixed bag of Maiden Claimers and Fillies with low-end claimers can produce a very High Variant figure even if the track is lightning fast. Conversely, a weekend or Holiday with a card featuring a Stakes Race and a couple of NW of 3 Allowance races and NO Maiden Claiming races could show an inordinately LOW variant even though the track was off. The Forms DV is the average of all the times run on a given day.

Consequently, in order to utilize this tool we must look upon it as a PAR, as opposed to a fact.

Think of PAR as you would on a golf course. While 69% of the players may be shooting birdies on a par five hole, par is still five. On a Par four hole the same 69% might have to settle for bogies; but par remains four. The same may be said for Dr. William Quirin's Par Times as published by Woodside and Wm. Morrow. While winning times may have changed at certain tracks since Quirin went to press, his Par Times -adjusted -according to his instruction, are viable tools for those handicapping within the frame of reference of HIS methodology. It is hard for me to imagine any serious handicapper not owning copies of Dr. Quirin's WINNING AT THE RACES, and his latest, THOROUGHBRED HANDICAPPING-STATE OF THE ART." (Wm.Morrow) Dr. Quirin's AVERAGE PAR VARIANT at all tracks that we have profiled is the same as ours. Consequently when we have been unable to actually profile a track ourselves we have used his average par variant. When using the material of others we only lift from the best.

So, use the Average Par Variant in the manual, or make your

own from the examples herein. You will note that if, let us say, Average Par Variant is 16, as it is at Santa Anita, that there will be little if any deviation at 14, 15, 17 or even 18. Beyond these clusters to the mean, however, important differences will emerge.

The next step is to determine the average difference per point of variant. Overall we have had excellent results using .08 per point of daily variant difference. You will have even better results using the actual difference. Enter it as PLUS if the daily variant is GREATER than par; as a MINUS if LESS than par. Don't MIX the pace figures of Fillies and Mares with those of Colts and Geldings; and ABOVE ALL don't MIX class levels. Take your numbers from both sexes from the SAME class of race. You'll find that the subsequent PAR DIFFERENTIAL will then apply to all classifications. It is the DIFFERENTIAL we are after, not the raw energy expenditure.

EXAMPLE: If we were handicapping this race at Bay Meadows and had determined the the Variant Differential was .08 per point of Racing Form Daily Variant, the figures in the margin would be our adjustments to the Track Variant. The average daily variant at Bay Meadows is: 17.

Royal Derby's Boy		Ch. 4, by Royal Derby II—Ach Like a Lady, by Ach Ach		1904 1 0 0 0		5275
Own—Fogelson E E		Tr.—Whittingham Michael		1903 2 1 0 0		52,500
Lifetime 3 1 0 0		53,175				
22nd-75M	14-463 1:12 1:57 1/2	13 114	334 412 531 54	Judge J C	A1250 12-17 Force of Reason, Montero, Single Ho 1	
23rd-75M	14-472 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
24th-75M	14-473 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
25th-75M	14-474 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
26th-75M	14-475 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
27th-75M	14-476 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
28th-75M	14-477 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
29th-75M	14-478 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
30th-75M	14-479 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
31st-75M	14-480 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
32nd-75M	14-481 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
33rd-75M	14-482 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
34th-75M	14-483 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
35th-75M	14-484 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
36th-75M	14-485 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
37th-75M	14-486 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
38th-75M	14-487 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
39th-75M	14-488 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
40th-75M	14-489 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
41st-75M	14-490 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
42nd-75M	14-491 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
43rd-75M	14-492 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
44th-75M	14-493 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
45th-75M	14-494 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
46th-75M	14-495 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
47th-75M	14-496 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
48th-75M	14-497 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
49th-75M	14-498 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
50th-75M	14-499 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
51st-75M	14-500 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
52nd-75M	14-501 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
53rd-75M	14-502 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
54th-75M	14-503 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
55th-75M	14-504 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
56th-75M	14-505 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
57th-75M	14-506 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
58th-75M	14-507 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
59th-75M	14-508 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
60th-75M	14-509 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
61st-75M	14-510 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
62nd-75M	14-511 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
63rd-75M	14-512 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
64th-75M	14-513 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
65th-75M	14-514 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
66th-75M	14-515 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
67th-75M	14-516 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
68th-75M	14-517 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
69th-75M	14-518 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
70th-75M	14-519 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
71st-75M	14-520 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
72nd-75M	14-521 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
73rd-75M	14-522 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
74th-75M	14-523 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
75th-75M	14-524 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
76th-75M	14-525 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
77th-75M	14-526 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
78th-75M	14-527 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
79th-75M	14-528 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
80th-75M	14-529 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
81st-75M	14-530 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
82nd-75M	14-531 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
83rd-75M	14-532 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
84th-75M	14-533 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
85th-75M	14-534 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
86th-75M	14-535 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
87th-75M	14-536 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
88th-75M	14-537 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
89th-75M	14-538 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
90th-75M	14-539 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
91st-75M	14-540 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
92nd-75M	14-541 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
93rd-75M	14-542 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
94th-75M	14-543 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
95th-75M	14-544 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
96th-75M	14-545 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
97th-75M	14-546 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
98th-75M	14-547 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
99th-75M	14-548 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	
100th-75M	14-549 1:12 1:57 1/2	11 118	324 404 524 54	Judge J C	M1250 7-11 Roy Derby's Boy, Rocky G. H. P. 12	

MAKING A DAILY VARIANT

SANTA ANITA

The formula for making a daily variant is, Using Feet per second:

$$\left[\frac{(2nd\ Call + 3rd\ Frac.)}{2} + \frac{True\ Speed}{2} \right] = \text{Variant Rating}$$

Always USE THE PACE of the RACE figures, NOT the Pace of the Winning Horse. Winner times are less reliable because today's \$20,000 Claimer may have been an allowance horse or a \$10,000 claimer last month. The Pace of the race is shared by as many as three horses and thus more indicative of True Class level, which, in making a daily variant, is what we're most concerned with.

The sampling from the Racing Form Example on the next page is of \$20,000 claimers. Sprints are distance-adjusted to 6 furlongs, Routes to a mile and 1/16th. The number of horses in the sampling would be adequate EXCEPT for mixed bag of week-days, week-ends and Holidays. This is why you will often find an 18 variant on a Sunday faster than a 17 on a Wednesday. To get a proper variant level you must average weekdays and weekends and Holidays separately. Use CLAIMING races to make your par-variant differential. Take the claiming level that is MOST COMMONLY run at all distances at YOUR TRACK(S). This way you'll have more races from which to draw your averages. In every sampling you will find at least ONE race that is considerably HIGHER in velocity than the average for that variant figure. You will also find one or two that are markedly LOWER. Discard these and average the median numbers. This procedure has proved most reliable in determining an accurate variant differential. Do not MIX males with females. DO SEPARATELY! It is especially important that you monitor your variants at least once a month. NEVER use the variant figure for one track to measure another. Subtle per point of variant differences occur, as you can see from the .09 Santa Anita Sprint level and the AQUEDUCT (ID) .106. When rating a horse from one track against another apply the variant of the track that the horse is COMING FROM.

$$\text{VARIANT} = (CM + K) / (2 + N) / 2$$

SANTA ANITA SPRINTS

Ave 16-17 = **55.56**

Ave. per point of VARIANT. **.11**

6f

DRF DAILY VARIANT 14

2ND CALL 59.73

3RD FRACTION 51.56

PACE RATING 55.645

TRUE SPEED(FINAL TIME) 56.3

VARIANT RATING 55.97

DRF DAILY VARIANT 16

2ND CALL 58.41

3RD FRACTION 52.38

PACE RATING 55.395

TRUE SPEED(FINAL TIME) 56.25

VARIANT RATING 55.82

DRF DAILY VARIANT 17

2ND CALL 59.73

3RD FRACTION 49.62

PACE RATING 54.675

TRUE SPEED(FINAL TIME) 55.93

VARIANT RATING 55.3

DRF DAILY VARIANT 21

2ND CALL 58.15

3RD FRACTION 50.77

PACE RATING 54.46

TRUE SPEED(FINAL TIME) 55.87

VARIANT RATING 54.77

- SANTA ANITA -
ROUTE (OVER 1 MILE)

```

DRF DAILY VARIANT 18
*****
2ND CALL 55.46
3RD FRACTION 50.3
*****
PACE RATING 52.88
TRUE SPEED(FINAL TIME) 53.84
*****
VARIANT RATING 53.36
*****
DRF DAILY VARIANT 17 (AVE) ——— 17-18 = 53.53
*****
2ND CALL 55.62
3RD FRACTION 50.93
*****
PACE RATING 53.275
TRUE SPEED(FINAL TIME) 54.15
*****
VARIANT RATING 53.71
*****
DRF DAILY VARIANT 23
*****
2ND CALL 55.15
3RD FRACTION 50.51
*****
PACE RATING 52.83
TRUE SPEED(FINAL TIME) 53.51
*****
VARIANT RATING 53.17
*****

```

AVE. Diff. Per VARIANT POINT:

$$53.53 - 53.17 / 5.5 = .065$$

MAKING A DAILY TRACK VARIANT

SANTA ANITA

SPRINTS

SANTA ANITA 6f

Own.—Six-S Racing Stable 6½ f 116

B. g. 4, by Raise a Native—Cajon Princess,
Br.—Comet De Montesson (Ky)

Tr.—Velasquez Danny \$16,000

Lifetime 15 2 1 2 \$21,925

18Mar04-ISA 6f :213 :442 1:18 1/2 115 1st 1st 45 914 Valenzuela PA11X2000 72-14 14-SUN

20,000 CLM.

Own.—Barrios & Madariaga

118

B. g. 5, by Earls Erma—Will Pay Doc, by D
Br.—Ellsworth R C (Ariz)

Tr.—Cortez John E \$16,000

Lifetime 30 6 4 4 \$62,348

20Feb04-ISA 6f :214 :45 1:17 1/2 116 43 43 78 65 Liphart T3 2000 78-16 16-Holiday

17Mar04-ISA 6f :213 :444 1:11 1/2 116 74 68 68 43 Liphart T3 2000 78-16 18-FRI.

20Mar04-ISA 6f :214 :444 1:05 1/2 116 75 68 51 60 Drexler H2 2000 80-18 14-SUN

19Feb04-ISA 6f :212 :442 1:16 1/2 116 23 116 64 47 54 81 1/2 Pierce D10 2000 74-14

13Feb04-ISA 6f :452 :104 1:46 1/2 115 78 68 74 94 Pierce D11 2000 66-16

13Feb04-Bumped start

13Feb04-ISA 6f :212 :444 1:16 1/2 116 71 112 43 44 52 117 Fuentes F P3 2000 78-16 17-SAT

21Jan04-ISA 6f :22 :45 1:10 1/2 116 15 121 105 63 33 54 Meza R Q2 2000 80-17

119

Own.—Murphy-Murphy-Thomas 116 Tr.—Steele Melvin F \$20,000

Lifetime 68 11 6 11 \$108,363

20Mar04-ISA 6f :22 :45 1:10 1/2 116 34 42 52 42 Valenzuela P A7 2000 84-16 16-OPENING DAY (Holiday)

20Mar04-ISA 6f :22 :45 1:10 1/2 116 43 22 11 111 Sibille R4 2000 84-16 16-GD. TRK

18Mar04-ISA 6f :22 :45 1:18 1/2 116 2nd 123 13 123 Valenzuela P A7 2000 77-21 21-WED.

20Mar04-2Hoi 6f :22 :45 1:09 1/2 116 21 21 11 111 Valenzuela P A7 2000 78-14 17-SAT.

21Jan04-ISA 6f :213 :441 1:10 1/2 115 11 12 12 13 Olivares F8 2000 84-17 16-HOLIDAY

12Feb04-ISA 6f :214 :45 1:17 1/2 116 84 84 84 84 Steiner J J1 2000 77-16

ROUTES

Own.—Villa Vista Stable & Cicero

116

Tr.—Fanning Jerry \$16,000

Lifetime 17 4 2 1 \$21,975

18Mar04-ISA 1 1/4 :453 1:11 1:44 1/2 116 45 33 104 101 13 Toro F3 2500 60-18 25,000-SUN.

25Feb04-ISA 1 1/4 :464 1:104 1:50 1/2 115 21 21 421 812 Olivares F3 2500 64-18 25,000-SAT

13Feb04-veered out, bumped start, fugged in stretch

13Feb04-ISA 1 1/4 :463 1:11 1:43 1/2 115 43 115 11 11 2nd 33 Valenzuela P A7 2000 73-17 17-WED.

13Feb04-ISA 1 1/4 :463 1:11 1:43 1/2 116 63 116 31 44 46 64 McGurn C2 2000 77-17 17-WED

11Jan04-ISA 1 1/4 :464 1:134 1:51 1/2 115 44 44 615 6173 Sibille R4 2000 52-23 X-23 WED.

13Feb04-ISA 1 1/4 :453 1:104 1:45 1/2 116 67 91 11 12 12 142 Delahoussaye E4 2000 61-18 X-18-Holiday

18Mar04-ISA 1 1/4 :463 1:112 1:44 1/2 115 51 61 52 43 Sibille R4 2000 76-18 X-18-FRI.

Average enough lines at Various Daily variants at the SAME class level to get a real picture. Throw out the Low and The High. Average the median. Make different averages for males and females and for weekdays and weekends-Holidays.

HQU ID		S.A.	
1	54.68	1	55.74
2	55.74	2	55.40
3	54.23	3	55.91
4	54.40	4	56.08
5	54.44	5	54.28
AVG	54.7	AVG	55.48

HIGH TRACK: S.A.

TRACK/TRACK VARIANT: .78 NEW: 1.18

NEW AVE
54.50

NEW AVE
55.68

Keep a calendar for this year and last in order to identify the day of the week; and NOTE all HOLIDAYS.

Some tracks are heavily watered before the first racing day of each week. If this is so at YOUR track, take it into consideration. That day will always have a HIGHER daily variant.

1984

1984

JANUARY							APRIL							JULY							OCTOBER						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	
8	9	10	11	12	13	14	8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	
29	30	31					29	30						29	30	31					20	21	22	23	24	25	
FEBRUARY							MAY							AUGUST							NOVEMBER						
1	2	3	4				1	2	3	4	5			1	2	3	4				1	2	3				
5	6	7	8	9	10	11	5	6	7	8	9	10	11	5	6	7	8	9	10	11	4	5	6	7	8	9	
12	13	14	15	16	17	18	12	13	14	15	16	17	18	12	13	14	15	16	17	18	11	12	13	14	15	16	
19	20	21	22	23	24	25	19	20	21	22	23	24	25	19	20	21	22	23	24	25	10	11	12	13	14	15	
26	27	28	29				26	27	28	29	30	31		26	27	28	29	30	31		9	10	11	12	13	14	
MARCH							JUNE							SEPTEMBER							DECEMBER						
1	2	3					1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	
4	5	6	7	8	9	10	4	5	6	7	8	9	10	2	3	4	5	6	7	8	2	3	4	5	6	7	
11	12	13	14	15	16	17	11	12	13	14	15	16	17	9	10	11	12	13	14	15	9	10	11	12	13	14	
18	19	20	21	22	23	24	18	19	20	21	22	23	24	16	17	18	19	20	21	22	16	17	18	19	20	21	
25	26	27	28	29	30	31	25	26	27	28	29	30	31	23	24	25	26	27	28	29	23	24	25	26	27	28	

Utilizing these variant figures paid big dividends to seven charter members of Pirco last December while playing a rain-soaked Bay Meadows Off-Track in Las Vegas. Two successive Quinellas yielded \$120 and \$200 (the limit) per \$6 ticket. The winner in one race and the place horse in the next were overlooked by the public because they showed speed ratings of 54 and 56 respectively. What the crowd failed to notice was that these speed ratings were earned on tracks with a 46 daily variant. Both horses had actually run well against a slow, sloppy pace. Here the pace lines of the two horses in relationship to the pace they ran against. These were the pace lines WE used to handicap and bet the two horses:

(A) 12500 CLM. BAY MEADOWS DV + 2.96						B 12500 CLM. BAY MEADOWS DV + 3.12					
WON \$54 ⁰⁰						PLACE \$24 ⁰⁰					
HORSE 1						HORSE 2					
RACE 1	1	2	3	BASIC	TOT/4	RACE 1	1	2	3	BASIC	TOT/4
RACE	53.88	50.38	47.41	52.66	51.65	RACE	53.88	50.77	50.77	52.80	52.56
HORSE	53.47	50.48	47.89	52.40	51.54	HORSE	53.67	50.67	50.56	52.62	52.37
PACE RATING	99.83	DIFFERENCE (.11)				PACE RATING	99.68	DIFFERENCE (.19)			

Here was the pace line from the last race of the favorite running against an 11 Daily Variant.

FAVORITE: 12500 CLM. BAY MEADOWS

HORSE 3					
RACE 1	1	2	3	BASIC	TOT/4
RACE	57.64	50.77	52.55	55.15	55.12
HORSE	56.99	50.77	52.64	54.69	54.75
PACE RATING	99.37	DIFFERENCE (.37)			

Far superior efforts on the part of A and B. But the public did not notice.

Moral: Apply the Daily Variant and Use your Pace of the Horse-Pace of the Race formula. It will pay big dividends.

PACE COMPARISON GRAPH

59.83	A
99.68	B
99.37	FAVORITE

★ TRACK TO TRACK VARIANT

The sole purpose of track-to-track variants is to equalize-mathematically - the surface of the tracks involved. Consider two human runners: one runs on the hard pavement of a city street, the other over the plowed fields of a farm. We will presume that if they ran against each other on EITHER surface, they would finish in a dead heat. However, they live two hundred miles apart and have never met. An entrepreneur decides to match these two mythical runners, offer a prize to the winner and allow his friends to wager on the match. The prospective bettors in the city clock C (the city runner) at 9 seconds flat for 100 yards on the pavement. He looks like a good bet. The farmers backing F (The farm boy) clock him at 12 seconds for the 100 yards. By their standards, that's fast. The site of the race is chosen: a regulation High School cinder track in a community half way between the city and the farm. When the race ends in a dead heat the backers of both runners are shocked to learn that the time for the race was 10.5 seconds. C ran the hundred one and a half seconds slower than normal and F ran it one and a half seconds faster. THAT is why we must employ track EQUALIZATION FIGURES: to compensate for the soft loam of the farm or the firm concrete of the city.

_____0_____

Most published track to track equalization figures are based on the average FINAL TIMES of winners by track, and are gauged on the basis of a fifth of a second per beaten length. If the average six furlong time at BOWIE, for instance was 1:12 and the Average time for the same distance at Santa Anita, 1:10, the BOWIE horse would be given an equalization figure of 10 (10 fifths) when shipping to Santa Anita. Unlike our two human runners, The BOWIE horse does not finish in a dead heat with the Santa Anita horse BECAUSE the equalization figures we based (a) on final time alone, and (b) no adjustment was made for the relative CLASS of the two tracks. Santa Anita is a CLASS I track, BOWIE a CLASS IV track. There is a 20% penalty per

level of Track CLASS that must be assessed against the BOWIE horse. BOWIE is 3 levels lower than Santa Anita so that's 60% or 6 fifths. Now the BOWIE horse only get an adjustment of four, so we are no longer surprised when at Santa Anita it runs the six furlongs in 1:11:1. Surface adjustments alone, are hypothetical. Surface adjustments combined with track CLASS adjustments are effective tools.

Because we base our ratings on INCREMENTAL times we do not make a track to track variant based on Final Time ALONE.

The formula is identical with the one used for daily variants. Once again we DO NOT use winners times but PACE OF THE RACE/ times, because they have proven more predictive, and for no other reason.

Since you have already made variant figures for the track you play the most regularly, the basis for your track to track equalization figures has been established. Merely follow the same procedure for other tracks involved. You have considerably more latitude in making track to track equalization figures. You may lump together different class levels (no more than 30% apart, however) and use races from daily variants that are within THREE on each side of average. Do separate figures for Six Furlongs, ONE MILE and a Mile and 1 1/6th. If these distances are not run at your track USE the distances nearest to them. For the most part the track to track equalization figures in the manual are close to accurate AT MOST TRACKS; BUT CERTAINLY NOT AT ANY TRACK WHERE THE SURFACE HAS BEEN ALTERED SINCE 1982 OR WHERE THE HARD WINTER OF '84 IN THE EAST AND MID-WEST HAS LEFT IT MARK ON TRACK SURFACES.

Our revised Manual, soon to be released, will contain updated Equalization figures that will be as accurate as we can make them. But nobody is more qualified than YOU to make these figures for your circuit now that you know the formula.

ALWAYS REMEMBER TO ADJUST EQUALIZATION FIGURES BY 20% PER TRACK CLASS LEVEL!

Since we do not use the 5th of a second rule but measure everything in feet per second our figures up front are more precise. This contributes to our 45% margin of error latitude, so precision in making these figures is LESS IMPORTANT than CONSISTENCY OF APPLICATION!

MAKING A TRACK TO TRACK VARIANT G.G-S.A.

6f. GG

FACTOR ANALYSIS
NO. CATEGORIES AMOUNT O/O
1 6F GG 2ND CALL
57.77 52.6
|||||||
2 3F 6F GG 51.98 47.4
|||||||
- AVE. 54.88

6f SA

NO. CATEGORIES AMOUNT O/O
1 6F S.A. 2ND CALL
58.54 54.1
|||||||
-2 3F SA 6F 49.63 45.9
|||||||
- AVE. 54.89

+ .79

1 Mi. GG

NO. CATEGORIES AMOUNT O/O
1 1 MI GG 2C 55.31 51.9
|||||||
2 3F MI GG 51.16 48.1
|||||||
- AVE. 53.24

1 Mi - SA

NO. CATEGORIES AMOUNT O/O
1 1 MI SA 2ND CALL
55.16 52.6
|||||||
2 3F MI SA 49.63 47.4
|||||||
- AVE. 52.40

+ .84

1 1/2 GG

NO. CATEGORIES AMOUNT O/O
1 8.5 F GG 2ND CALL
56.17 52.8
|||||||
2 3F GG 8.5 F 50.15 47.2
|||||||
- AVE. 53.16

1 1/2 SA

NO. CATEGORIES AMOUNT O/O
1 2C 8.5F S.A. 55.86 52.8
|||||||
2 3F 8.5F SA 50 47.2
|||||||
- AVE. 52.93

+ .23

1 1/8 GG

NO. CATEGORIES AMOUNT O/O
1 2C 9F GG ~~55.97~~ ~~53.7~~
|||||||
-2 3F 9F GG 49.01 46.7
|||||||
- AVE. 52.47

1 1/8 SA

NO. CATEGORIES AMOUNT O/O
1 3F SA 2ND CALL
55.31 51.4
|||||||
-2 3F SA 9F 52.38 48.6
|||||||
- AVE. 53.85

- 1.38

ENERGY EXPENDITURE



A client from Oklahoma recently qualified for Charter Membership into PIRCO as a result of his outstanding success at Oaklawn Park in Hot Springs, Ark. He applied for membership based on a 57% win proficiency. **I said** that was not high enough. To which he replied: "Playing only ONE HORSE!". That IS spectacular. He now plays two horses with a proficiency close to 80% spot playing an average of 4 plays per day per track. He has been a client for less than five months and attributes his success to his background as an educational psychologist working for a well-known Oklahoma College as a TRACK COACH AND TRAINER. He understands ENERGY EXPENDITURE. He is keenly aware of the kinetoxins that build up in the bloodstreams of humans and horse alike when muscles are in motion. He knows that in a short dash maximal energy is required from starting block to tape but that in longer races energy must be dispensed in a manner that reserves sufficient energy for the final drive to the tape. He fully comprehends the laws of physics which tell us that for every unit of positive energy expenditure comes a .. compensating loss of force. i.e.: DECELERATION. For a thoroughbred to win it must be conditioned to have (a) enough TOTAL energy to compete at a given distance and class level; and (b) a running style (Behavioral pattern) that conforms to the track's bias which dictates (c) requirements for PERCENTAGE of ENERGY needed EARLY - (2nd Call) and LATE (3rd fraction). Make no mistake about it, EACH TRACK does impose such requirements and horses that cannot meet them will only win when there is a change in bias or when the horse, or horses fitting the % of energy pattern fail to respond normally, either because of condition problems or trouble encountered that impeded their normal behavior pattern.

Heretofore we have used PACE OF THE RACE in determining energy for track variant and equalization figures. To understand WIN PAR ENERGY we will use the pace of the WINNING HORSE.

Before discussing Par Energy Expenditure as determined by winners total energy, energy percentage Early and late, let's establish some parameters for what constitutes an Early Bias, a Sustained Bias and No Bias (average). Average is really a misnomer here because no-bias tracks and/or situations are a rarity.

Early: SPRINTS.....52.6%-up
ROUTES.....52.4 - up
LATE : SPRINTS.....51.8-down
ROUTES.....51.6-down
AVG: SPRINTS.....52.0
ROUTES.....52.0

There is a grey area between the average 52% Early, 48% late that is biased slightly toward early or late, but the above percentages dominate any track profile.

Bob Purdy, Jr. of Pirco, has done profiles on all the California and New York tracks using winners times at every class and distance for every racing day. The Purdy report reveals a remarkably consistent % Early and % Late pattern for winners at all tracks surveyed.

★ The most important piece of evidence to be garnered from his report is that a horse can win if it's within .72 f/p/s of TOTAL Win Par Energy, but seldom wins when his % Early and % Late exertion are not reasonably close to pars.

— 0 —

To demonstrate the importance of win energy pars we have selected two races sent in by clients where the low-odds favorites each lost to contenders going off at superior odds because the favorites did not demonstrate a running style that conformed to par energy expenditure. The races are at PIMLICO and GOLDEN GATE respectively.

THE CONTENDERS

1 PIMLICO

1-16 MILES

1 1/4 MILES. 1141 CLAIMING. Purse \$2,500. 4-year-olds and upward. Weights, 122 lbs. Non-winners of two races at one mile or over since February 10 allowed 3 lbs. One such race 5 lbs. Such a race since February 10, 5 lbs. Claiming Price \$14,500; for each \$500 to \$13,500, 1 lb. (Races where entered for \$12,000 or less not considered.)

4TH THE FAV.

3RD THE CULPRIT

THE RACER

THE WINNER

A Breezy Spray

Own—Meeting House Farm

19Mar64	5Pm 1st	1/4	47	1:11 1/4	1:43 1/4	Clim 11500	2	1	13	11 1/2	17	14	Hunter M T S	114	*70e
22Feb64	7Bw 1st	1/4	48	1:14	1:40 1/4	Clim 14500	4	1	14	12	17	14	Hunter M T S	105	2:40e
13Feb64	5Bw 1st	1/4	49	1:14 1/4	1:47 1/4	Clim 14500	4	2	—	—	2nd	2nd	Hunter M T S	109	6:00
27Jan64	5Bw 1st	1/4	48 1/2	1:13 1/4	1:47 1/4	Clim c-11500	4	2	1st	11 1/2	2nd	2nd	Bracciale V Jr	115	7:00
10Jan64	7Bw 1st	1/4	47 1/2	1:13 1/4	1:46 1/4	Clim 18500	2	2	23	21	46 1/2	73 1/2	Saunell L	115	10:70
31Dec63	5Bw 1st	7/8	22	44 1/2	1:20 1/4	Atw 10000	5	7	57	56	74 1/2	73 1/2	Kaenel J L	114	27:50
17Dec63	3Bw 1st	7/8	22 1/2	46	1:26	Clim 18500	3	2	31	21	2nd	41	Kaenel J L	119	3:40
23Nov63	3Bw 1st	1/4	46 1/2	1:12 1/4	1:38 1/4	Clim 22000	8	2	12	1st	52	54 1/2	Wright D R	116	3:00
16Nov63	3Lrl 1st	1/4	46 1/2	1:12 1/4	1:38 1/4	Clim 16000	4	2	1st	11 1/2	13	13 1/2	Bracciale V Jr	115	5:70
5Nov63	4Lrl 1st	1/4	48 1/2	1:14 1/4	1:48 1/4	Clim 20000	6	6	53	32	67 1/2	89 1/2	Bracciale V Jr	116	4:30

*The Cable Rock

Own—Preston Park

19Mar64	7Pm 1st	1/4	47 1/2	1:11 1/4	1:43 1/4	Atw 9500	1	2	2nd	42	55 1/2	61 1/2	Baltazar C	114	13:30
6Mar64	4Bw 1st	7/8	23 1/2	47	1:25 1/4	Mid 11500	7	2	12	11 1/2	12	12	Baltazar C	122	1:60
23Feb64	1Bw 1st	1/4	47 1/2	1:13 1/4	1:40 1/4	Mid Sp Wt	3	3	41 1/2	34	34	41 1/2	Baltazar C	122	12:50
11Jan64	2Aou 1st	1/4	24	49 1/2	1:14 1/4	Mid 14000	12	9	8 1/2	64	76 1/2	51 1/2	Lovato F Jr	b	122 4:50
6Jan64	2Aou 1st	1/4	23	46 1/2	1:12 1/4	Mid 20000	6	2	41	65	71 1/2	101 1/2	Thibeau R J	b	118 4:30
7Dec63	2Aou 1st	1/4	23 1/2	47 1/2	1:13 1/4	3+ Mid 20000	7	7	76 1/2	59 1/2	39 1/2	32 1/2	Thibeau P J	b	116 5:40
5Dec63	2Aou 1st	7/8	23	46 1/2	1:25	3+ Mid 20000	3	4	21	2nd	58	71 1/2	Murphy D J S	111	*2:20
5Nov63	3Aou 1st	1/4	22 1/2	46 1/2	1:20 1/4	3+ Mid 20000	8	7	54 1/2	45 1/2	2nd	21 1/2	MacBeth D	b	120 *1:30
31Oct63	4Aou 1st	1/4	21 1/2	49 1/2	1:15 1/4	3+ Mid Sp Wt	7	2	21	54	71 1/2	91 1/2	Murphy D J S	b	114 4:70
21Oct63	3Aou 1st	1/4	23	46 1/2	1:17 1/4	3+ Mid 45000	1	5	11 1/2	1st	1st	2nd	Thibeau R J S	110	4:00

Virgin Territory

Own—R & G Stable

24Mar64	7Pm 1st	1/4	47 1/2	1:12 1/4	1:45 1/4	Clim 11500	3	9	78	65 1/2	42 1/2	12	Pinc M G	b	114 5:00
6Mar64	5Bw 1st	1/4	49	1:13 1/4	1:46 1/4	Clim 11500	4	7	57 1/2	44 1/2	34 1/2	34 1/2	Hunter M T S	b	105 6:10
25Feb64	5Bw 1st	1/4	49 1/2	1:13 1/4	1:48 1/4	Clim 11500	6	7	77	79	56 1/2	43	Miller D A Jr	b	115 4:40
16Feb64	5Bw 1st	1/4	49	1:15 1/4	1:48 1/4	Clim 11500	8	6	56	43	35	37	Hunter M T S	b	109 6:00
5Feb64	2Bw 1st	1/4	49 1/2	1:14 1/4	1:48 1/4	Clim c-8500	9	10	916	814	56 1/2	11 1/2	Miller D A Jr	b	114 *2:30
27Jan64	5Bw 1st	1/4	48 1/2	1:13 1/4	1:47 1/4	Clim 11500	9	10	1017	916	610	47 1/2	Delgado A	b	114 *1:10
9Jan64	6Bw 1st	1/4	47 1/2	1:13 1/4	1:47 1/4	Clim 11500	3	9	917	817	65 1/2	2nd	Miller D A Jr	b	114 *3:30
20Dec63	4Bw 1st	1/4	49	1:13 1/4	1:45 1/4	3+ Clim 11500	1	5	55 1/2	55	55	21 1/2	Kaenel J L	b	114 10:70
12Dec63	3Bw 1st	1/4	49 1/2	1:14	1:47	3+ Clim 11500	5	6	618	614	613	49 1/2	Kaenel J L	b	114 8:00
3Dec63	3Lrl 1st	1/4	48 1/2	1:14	1:39 1/4	3+ Clim 10000	5	7	714	715	716	61 1/2	Kaenel J L	b	115 *1:10e

Take Pity

Own—Murphy J E

23Mar64	7Pm 1st	1/4	47	1:12 1/4	1:45 1/4	Clim 6500	7	5	84 1/2	810	811	814 1/2	Hutter	b	113 5:20
26Feb64	5Bw 1st	1/4	47 1/2	1:13 1/4	1:47 1/4	Clim 16000	3	2	23	23 1/2	48 1/2	51 1/2	Hutter G W	b	113 21:00
20Feb64	5Bw 1st	1/4	47 1/2	1:13 1/4	1:47 1/4	Clim 20000	8	8	811	812	717	69 1/2	Mutbin G W	b	113 60:30
23Nov63	3Lrl 1st	1/4	46 1/2	1:12 1/4	1:38 1/4	Clim 21000	2	1	32	813	823	830 1/2	Saunell L	b	115 12:70
14Nov63	3Lrl 1st	1/4	46 1/2	1:12 1/4	1:37 1/4	Clim 25000	3	3	611	517	918	814 1/2	Saunell L	b	116 22:00
28Aug63	3CT 1st	1/4	24	48	1:21	3+ Atw 4500	5	11	2nd	1st	12	14	Munden M F	b	115 *1:00
14Aug63	3CT 1st	7/8	24	47 1/2	1:27 1/4	3+ Atw 4500	8	17	21	21	23	24	Palmer R W	b	115 *7:0
5Aug63	7Key 1st	1/4	21 1/2	44 1/2	1:10 1/4	3+ Atw 3500	5	5	67 1/2	613	69 1/2	61 1/2	Palmer R W	b	111 3:70
22Jul63	1CT 1st	1/4	23 1/2	47 1/2	1:19 1/4	3+ Atw 3000	1	1	11 1/2	16	115	110	Palmer R W	b	109 10:40

Fast Promoter

Own—The Jim Stable

24Mar64	5Bw 1st	1/4	48 1/2	1:13 1/4	1:46 1/4	Clim 14500	6	7	52 1/2	64	22	22	Miller D A Jr	b	114 5:40
22Feb64	7Bw 1st	1/4	48 1/2	1:14	1:46 1/4	Clim 14500	7	6	710	611	612	61 1/2	Passmore W J	b	114 15:50
13Feb64	5Bw 1st	1/4	49	1:14 1/4	1:47 1/4	Clim 14500	8	5	—	—	39	45	Miller D A Jr	b	114 13:10
27Jan64	5Bw 1st	1/4	48 1/2	1:13 1/4	1:47 1/4	Clim c-11500	1	4	47	47 1/2	47 1/2	41 1/2	Krone A J	b	119 11:40
9Jan64	5Bw 1st	1/4	47 1/2	1:13 1/4	1:47 1/4	Clim 11500	6	8	712	511	21 1/2	1st	Pino M G	b	114 14:70
25Dec63	5Bw 1st	1/4	48	1:13	1:47 1/4	3+ Clim c-8500	1	4	38	25	22	31 1/2	Passmore W J	b	114 3:40
18Dec63	5Bw 1st	1/4	48 1/2	1:13 1/4	1:47 1/4	3+ Clim 8500	11	8	674	654	23	39 1/2	Byrnes D	b	114 3:20
26Nov63	7CT 1st	7/8	22 1/2	47 1/2	1:25 1/4	3+ Clim 12500	8	10	52 1/2	52 1/2	101 1/2	101 1/2	Dubuy L	b	114 6:20
30Oct63	6Pen 1st	1/4	47	1:12	1:39	3+ Clim 15000	3	3	46	45 1/2	47 1/2	54 1/2	Grove P	b	115 5:00
23Oct63	3Pen 1st	1/4	48 1/2	1:13	1:46	3+ Clim 20000	1	6	644	611	56 1/2	57 1/2	Grove P	b	115 4:00

Ch. b. or br. g. 4, by Salt Spray—Another Breeze, by Ocala Breeze
\$14,500
Br.—Manhass J A (Md)
Tr.—Caviness Thomas S

19Mar64	5Pm 1st	1/4	47	1:11 1/4	1:43 1/4	Clim c-11500	2	1	13	11 1/2	17	14	Hunter M T S	114	*70e
22Feb64	7Bw 1st	1/4	48 1/2	1:14	1:40 1/4	Clim 14500	4	1	14	12	17	14	Hunter M T S	105	2:40e
13Feb64	5Bw 1st	1/4	49	1:14 1/4	1:47 1/4	Clim 14500	4	2	—	—	2nd	2nd	Hunter M T S	109	6:00
27Jan64	5Bw 1st	1/4	48 1/2	1:13 1/4	1:47 1/4	Clim c-11500	4	2	1st	11 1/2	2nd	2nd	Bracciale V Jr	115	7:00
10Jan64	7Bw 1st	1/4	47 1/2	1:13 1/4	1:46 1/4	Clim 18500	2	2	23	21	46 1/2	73 1/2	Saunell L	115	10:70
31Dec63	5Bw 1st	7/8	22	44 1/2	1:20 1/4	Atw 10000	5	7	57	56	74 1/2	73 1/2	Kaenel J L	114	27:50
17Dec63	3Bw 1st	7/8	22 1/2	46	1:26	Clim 18500	3	2	31	21	2nd	41	Kaenel J L	119	3:40
23Nov63	3Bw 1st	1/4	46 1/2	1:12 1/4	1:38 1/4	Clim 22000	8	2	12	1st	52	54 1/2	Wright D R	116	3:00
16Nov63	3Lrl 1st	1/4	46 1/2	1:12 1/4	1:38 1/4	Clim 16000	4	2	1st	11 1/2	13	13 1/2	Bracciale V Jr	115	5:70
5Nov63	4Lrl 1st	1/4	48 1/2	1:14 1/4	1:48 1/4	Clim 20000	6	6	53	32	67 1/2	89 1/2	Bracciale V Jr	116	4:30

B. c. 4, by Stradavinsky—Mivanwy, by Welsh Saint
\$14,500
Br.—De Vere Hunt & Maxwell (Ire)
Tr.—Bond Bernard P

19Mar64	7Pm 1st	1/4	47 1/2	1:11 1/4	1:43 1/4	Atw 9500	1	2	2nd	42	55 1/2	61 1/2	Baltazar C	114	13:30
6Mar64	4Bw 1st	7/8	23 1/2	47	1:25 1/4	Mid 11500	7	2	12	11 1/2	12	12	Baltazar C	122	1:60
23Feb64	1Bw 1st	1/4	47 1/2	1:13 1/4	1:40 1/4	Mid Sp Wt	3	3	41 1/2	34	34	41 1/2	Baltazar C	122	12:50
11Jan64	2Aou 1st	1/4	24	49 1/2	1:14 1/4	Mid 14000	12	9	8 1/2	64	76 1/2	51 1/2	Lovato F Jr	b	122 4:50
6Jan64	2Aou 1st	1/4	23	46 1/2	1:12 1/4	Mid 20000	6	2	41	65	71 1/2	101 1/2	Thibeau R J	b	118 4:30
7Dec63	2Aou 1st	1/4	23 1/2	47 1/2	1:13 1/4	3+ Mid 20000	7	7	76 1/2	59 1/2	39 1/2	32 1/2	Thibeau P J	b	116 5:40
5Dec63	2Aou 1st	7/8	23	46 1/2	1:25	3+ Mid 20000	3	4	21	2nd	58	71 1/2	Murphy D J S	111	*2:20
5Nov63	3Aou 1st	1/4	22 1/2	46 1/2	1:20 1/4	3+ Mid 20000	8	7	54 1/2	45 1/2	2nd	21 1/2	MacBeth D	b	120 *1:30
31Oct63	4Aou 1st	1/4	21 1/2	49 1/2	1:15 1/4	3+ Mid Sp Wt	7	2	21	54	71 1/2	91 1/2	Murphy D J S	b	114 4:70
21Oct63	3Aou 1st	1/4	23	46 1/2	1:17 1/4	3+ Mid 45000	1	5	11 1/2	1st	1st	2nd	Thibeau R J S	110	4:00

Ch. b. or br. g. 4, by First Landing—Footloose, by Native Dancer
\$14,500
Br.—Vanderbilt A G (Md)
Tr.—Ragan Scott

Clim 11500	3	9	78	65 1/2	42 1/2	12	Pinc M G	b	114	5:00
Clim 11500	4	7	54 1/2	44	34 1/2		Hunter M T5	b	125	6:10
Clim 11500	6	7	77	79	56 1/2	43	Miller D A Jr	b	115	4:40
Clim 11500	8	6	56	43	35	37	Hunter M T5	b	109	6:00
Clim c-8500	9	10	916	814	56 1/2	111	Miller D A Jr	b	114	*2:30
Clim 11500	10	10	917	916	516	471	Delgado A	b	114	*3:10
Clim 11500	3	9	917	817	63 1/2	2no	Miller D A Jr	b	114	*3:30
Clim 11500	1	5	55 1/2	53	21 1/2		Kaenel J L	b	114	10:70
Clim 11500	5	6	615	614	613	491	Kaenel J L	b	114	8:00
Clim 10000	5	7	714	715	716	612 1/2	Kaenel J L	b	115	*1:10e

THE ALSO RANS

Chief Manelski

Own.—Quality Hill Stables

Ch. h. & br. p. S. by Dancing Count—Run Along Bess.

\$14,500 Br.—Sanders H (Md)

Tr.—Deip Richard W

Lifetime 1984 5 0 1 1 \$2,430
40 5 7 7 1983 20 1 5 4 \$21,790
\$47,460 Turn 1 0 0 0

20Mar84	7Pm fst 6f	22%	45%	1.11%	Cim 14900
10Mar84	5Bw fst 7f	23%	45%	1.24	Cim 20000
23Feb84	7Bw fst 7f	23%	46%	1.26%	Cim 18500
5Feb84	3Bw fst 7f	23%	46%	1.22%	Cim 20000
2Feb84	6Bw fst 7f	23%	46%	1.25	Cim 18500
14Jan84	5Bw fst 7f	23%	46%	1.25%	Cim 18500
31Dec83	6Bw fst 7f	22	44%	1.20%	3+ Cim 10000
22Dec83	5Bw fst 7f	23	46%	1.25	3+ Cim 18500
11Nov83	6Lrl fst 1	46%	1.11%	1.38%	3+ Cim 25000
3Nov83	6Lrl fst 1	46	1.11%	1.37	3+ Cim 25000

Haligoluk

Own.—Vranas Barbara E

Ch. h. & br. p. S. by Search For Gold—Taste o'Luck, by What Luck

\$14,500 Br.—Bergh B H (Md)

Tr.—Kuhn Marvin

Lifetime 1984 5 1 0 0 \$4,650
70 5 5 16 1983 22 2 1 3 \$16,310
\$75,172 Turn 6 1 0 0 \$7,710

7Mar84	4Key fst 6f	22%	46%	1.12%	Cim 14000
13Feb84	6Bw fst 1 1/2	49	1.14%	1.47%	Cim 14500
7Feb84	5Bw fst 1 1/2	47%	1.12%	1.44%	Cim 11900
1Feb84	6Bw fst 7f	22%	45%	1.23%	Cim 12500
10Jan84	5Bw fst 7f	23	46%	1.25%	Cim 14500
31Dec83	1Bw fst 6f	22%	44%	1.09	3+ Cim 14500
14Dec83	4Med fst 6f	22%	46	1.11%	3+ Cim 12500
8Dec83	5Lrl fst 6f	23%	47%	1.11%	3+ Cim 12500
1Dec83	9Lrl fst 6f	23	47%	1.12	3+ Cim c-10000
23Nov83	6Lrl fst 1 1/2	48%	1.13%	1.45%	3+ Cim 16000

LATEST WORKOUTS

Mar 24 Lrl 5f fst 1:02% h

Mar 16 Lrl 5f fst 1:01% h

Mar 3 Lrl 5f fst 59 h

Red Hot and Cole

Own.—Ramirez L A

Ch. h. & br. by Spanish Rhinoceros—Platterland, by First Landing

\$14,500 Br.—Perrin J K (Md)

Tr.—Brown Steven R

Lifetime 1984 2 0 0 0 \$246
34 4 5 7 1983 9 0 2 3 \$3,430
\$39,931

2Mar84	6Bw fst 1 1/2	48%	1.13%	1.46%	Cim 14500
7Feb84	3Bw fst 1 1/2	46%	1.10	1.41%	Cim 18500
31Dec83	5Bw fst 1 1/2	46	1.10%	1.41%	3+ Cim 18500
22Dec83	5Bw fst 7f	23	46%	1.25	3+ Cim 18500
9Dec83	5Lrl fst 1	47%	1.13%	1.38%	3+ Cim 18000
1Dec83	7Lrl fst 1	47%	1.13	1.38%	3+ Cim 16000
23Nov83	6Lrl fst 1 1/2	48%	1.13%	1.45%	3+ Cim 16000
11Nov83	6Lrl fst 1	46%	1.11%	1.38%	3+ Cim 22000
1Nov83	7Lrl fst 6f	22%	46%	1.11%	3+ Cim 20000
12Jan83	5Aqu fst 1 1/2	48	1.12%	1.58%	Cim 25000

THE RESULTS

Saturday Race Charts From Pimlico

Chevrolet 1984, Daily Racing Form, Inc.
March 31; Track—Fast
1—\$14,500; 1-1/16 mi.; 4YO-up; Cmo. \$14,500-13,500.
Off at 1:01 a.m. Start good. Won driving. Winner, The Jim
Stable's ch. by Huron—Fast Comets by Hasty Road.
Trained by Kimo T. Leatherbury. Time: 22.44%, 1:11%,
1:39%, 1:53%.

Horse	Jockey PP	W	1/2	3/4	Str.	Fin.	Odds
Fast Promoter	Passmore	7	6	6	3	1	\$7.10
Virgin Territory	Pino	3	7	5	5	2	4.60
The Cable Rock	Bellazar	2	2	2	2	3	12.50
A Breezy Spray	Hunter	1	1	1	1	4	.80
Haligoluk	Kupfer	6	4	4	4	5	9.40
Chief Manelski	Jenkins	5	3	3	3	6	6.90
Red Hot And Cole	Devov	8	8	8	7	7	6.90
Take Pity	Delgado	4	5	7	7	8	52.70

FAST PROMOTER, \$16.20, \$4.48, \$4.60; VIRGIN TER-
RITORY, \$6.00, \$4.00; THE CABLE ROCK, \$7.60.

EXACTA (7-3) PAID \$45.40

\$1620 - 640 - 460

THE RACE

Pimlico

1ST RACE

A BREEZY SPRAY - FAVORITE

4TH
(OUT)

EP 2ND CALL(EP) 55.46 *0-20 from f/p/s chart M*
SP SUSTAINED PACE 53.35 *(0-20 + 20-PC) 1/2 from f/p/s chart P*
TS TRUE SPEED 54.15 *DISTANCE/ANAL TIME N*

EP+SP
2

OR EP+SP
35

RAW FACTOR W + CLASS

RAW FACTOR W 53.8 CLASS
ADJUSTED W 54.63 .83

SP EX RAW 53.35 PAR DIF SP-PAR
EX ADJ 54.18 53.17 + 0.18

SP+CLASS

EP
EP+SP

SP
EP+SP

% EX EARLY 51.98 51.65 + 0.33 → % EX EARLY - PAR

% EX LATE 48.02 48.35 - 0.33 → % EX LATE - PAR

VIRGIN TERRITORY

2ND

2ND CALL(EP) 54.01
SUSTAINED PACE 52.61
TRUE SPEED 53.13
RAW FACTOR W 51.66 CLASS
ADJUSTED W 52.4 .74

EX RAW 52.61 PAR DIF
EX ADJ 53.35 53.17 - 0.56

% EX EARLY 51.33 51.65 - 0.32

% EX LATE 48.67 48.35 + 0.32

FAST PROMOTER - RAW

WINNER

2ND CALL(EP) 54.42
SUSTAINED PACE 53.08
TRUE SPEED 53.5
RAW FACTOR W 52.52 CLASS
ADJUSTED W 53.14 .62

EX RAW 53.08 PAR DIF
EX ADJ 53.7 53.17 - 0.09

% EX EARLY 51.27 51.65 - 0.38

% EX LATE 48.73 48.35 + 0.38

THE RESULTS

Saturday Race Charts From Pimlico

Copyright 1984, Daily Racing Form, Inc.
March 21: Track - Fast
1-12,380; 1-1/16 and 4YO-up; cmo. \$14,500-13,500.
Off at 1:01 p.m. Start good. Won driving. Winner, The Jim
Stable's chg. by Horse - Fast Coquette by Hasty Road.
Trained by Kloe T. Leatherbury. Time: 21.46 1/2, 1:11 1/2,
1:30 1/2, 1:45 1/2.

Horse	Jackey	PP	1/4	1/2	3/4	Str.	Fin.	Odds
Fast Promoter	Passmore	7	6	4	6	3	1	\$7.10
Virgin Territory	Pro	3	7	5	5	4	2	4.60
The Cable Rock	Balfour	2	2	2	2	1	3	12.50
A Breezy Spray	Murphy	1	1	1	1	2	4	80
Halligan	Klover	6	4	4	4	5	5	9.40
Chief Mammoth	Jenkins	5	3	3	3	5	6	4.90
Red Hot And Cold	Devoy	8	8	8	8	7	7	4.90
Take Pity	Douglas	4	5	7	7	8	8	52.70

FAST PROMOTER, \$14.20, \$4.40, \$4.40; VIRGIN TERRITORY, \$6.00, \$4.00; THE CABLE ROCK, \$7.00.
EXACTA (7-3) PAID \$45.40

\$1620 - 640 - 460
→ 600 - 400

THE CULPRIT

While the favorite, Breezy Spray, WON its last out at Pimlico and the race before at Bowie, it did so with an UNCONTESTED Early lead. Today the ONLY OTHER Early pace Horse is:

Z THE CABLE ROCK

RACE # 1				
1ST	2ND	3RD	2C	TOT/4
56.41	55.93	51.56	56.17	55.02

56.41	55.93	51.56	56.17	55.02

This sprinter of questionable class has only one chance at today's route distance: to steal the race by taking an early lead and going wire to wire. It almost did, finishing 3rd. The important thing is that Cable Rock lured A Breezy Spray into going too fast too soon with the result that the horses closest to PAR EARLY and LATE won and placed.

A BREEZY SPRAY was +.33, Far too fast EARLY for Pimlico at its present (March 31) Win Energy style. The Cable Rock was even higher, +.70 off of 7 furlongs. Par Early is (was) only 51.65 as Pimlico was running SUSTAINED.

THE CABLE ROCK

```

*****
2ND CALL(EP) 56.17
SUSTAINED PACE 53.87
TRUE SPEED 54.1
RAW FACTOR W 55.02 CLASS
ADJUSTED W 55.23 .21
*****
X EX RAW 53.87 SPRINT PAR DIF
  EX ADJ 54.08 53.17 + 0.70
*****
% EX EARLY 52.14 51.65 + 0.49
*****
% EX LATE 47.86 48.35 - 0.49
*****

```

X
 TOTAL ENERGY
 ADJUSTED TO
 ROUTE would
 be only 51.42

Since both A Fast Promoter and Virgin Territory Qualified on the basis of Par TOTAL energy, their figures closest to % of PAR Early and Late, made them standout choices.

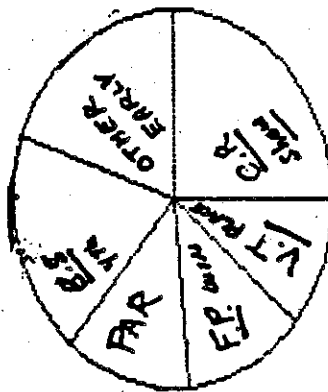
GRAPHING THE RACE

The Importance of PAR ENERGY EXPENDITURE

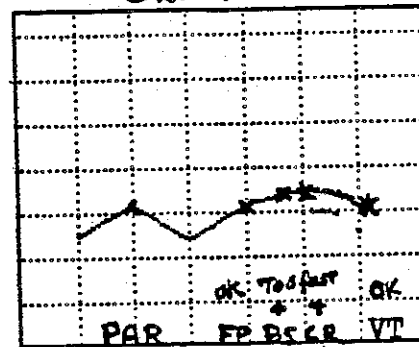
- TOTAL - % EARLY % LATE

Horses can be as much as .72 f/p/s UNDER TOTAL ENERGY PAR IF they meet the % Early % Late specification better than other contenders with MORE total Energy. In this Race BOTH A FAST PROMOTER and VIRGIN TERRITORY Qualified under the TOTAL ENERGY parameters.

2nd call
Energy Chart



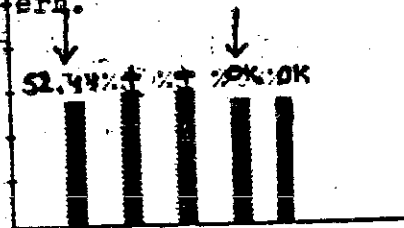
2ND CALL
GRAPH



PIMLICO 1ST RACE

Energy - 2ND CALL

With Both Breezy Spray and The Cable Rock demonstrating too fast an early energy pattern.



PAR BS CR FP VT
W P

WHY A BREEZY SPRAY LOST

2ND RACE - Golden Gate - Feb 23-84

PETELET

2ND CALL (EP).....52.66
SUSTAINED PACE.....51.48
RAW TRUE SPEED.....52.18
RAW FACTOR U.....50.17
CLASS ADJUSTMENT...0.67
ADJUSTED FACTOR U..50.84

X OUT

EX RAW 51.42 PAR DIFF
EX ADJ 51.75 52.22-0.8

1/2 EX EARLY 52.18 51.96 +0.22

1/2 EX LATE 47.82 48.04-0.22

TRSH CN ANNIE

2ND CALL (EP).....51.42
SUSTAINED PACE.....51.04
RAW TRUE SPEED.....52.03
RAW FACTOR U.....49.44
CLASS ADJUSTMENT...0.6
ADJUSTED FACTOR U..50

EX RAW 52.84 PAR DIFF
EX ADJ 53.14 52.22 +0.92

1/2 EX EARLY 48.66 51.96-3.32 XOUT

1/2 EX LATE 51.34 48.04 +3.3

COUL KITTY

2ND CALL (EP).....52.65
SUSTAINED PACE.....52.61
RAW TRUE SPEED.....52.94
RAW FACTOR U.....50.56
CLASS ADJUSTMENT...0.41
ADJUSTED FACTOR U..50.95

X OUT

EX RAW 52.6 PAR DIFF
EX ADJ 52.81 52.22 +0.36

1/2 EX EARLY 50.23 51.96-1.73

1/2 EX LATE 49.77 48.04 +1.73

ALTO HOPES

2ND CALL (EP).....52.58
SUSTAINED PACE.....52.13
RAW TRUE SPEED.....52.26
RAW FACTOR U.....49.84
CLASS ADJUSTMENT...0.38
ADJUSTED FACTOR U..50.22

EX RAW 52.13 PAR DIFF
EX ADJ 52.32 52.22 +0.09

1/2 EX EARLY 50.43 51.96-1.53

1/2 EX LATE 49.57 48.04 +1.53

TOMI KL

2ND CALL (EP).....53.4
SUSTAINED PACE.....51.90
RAW TRUE SPEED.....52.18
RAW FACTOR U.....50.06
CLASS ADJUSTMENT...0.34
ADJUSTED FACTOR U..50.43

EX RAW 51.59 PAR DIFF
EX ADJ 51.76 52.22-0.63

1/2 EX EARLY 51.76 51.96-0.2

1/2 EX LATE 48.24 48.04 +0.2

EVALUATION

+ CLOSEST TO TOTAL PAR: 1: TRSH CN ANNIE

2: COUL KITTY

3: ALTO HOPES

+ CLOSEST TO EARLY PAR: 1: TOMI KL

2: PETELET (OUT)

3: ALTO HOPES

+ CLOSEST TO LATE PAR: 1: TOMI KL

2: PETELET (OUT)

3: ALTO HOPES

- FARTHEST FROM TOTAL PAR: 1: PETELET

2: TOMI KL

- FARTHEST FROM EARLY PAR: 1: TRSH CN ANNIE

2: COUL KITTY

WINNER: TOMI KL \$190-760-600

PLACE: ALTO HOPES \$620-520

PETELET IS .80 off TOTAL PAR
THIS IS TOO SLOW - ~~THROW OUT~~ - HORSE
CONSISTENTLY FADES - See last 5 RACES

TRASH CN ANNIE NEVER SHOWS ENOUGH
EARLY SPEED TO WIN AT THESE PARS - THROW OUT

COUL KITTY - TOO FAR OFF EARLY PAR - THROW OUT

TOMI KL CLOSEST TO WIN 2 PARS - OK

ALTO HOPES 2ND CLOSEST TO 3 WIN PARS -- OK

GOLDEN GATE/Charts

3310 - SECOND (2nd half DD) 1-1 1/2 mile,
fillies and mares four year olds and
up, claiming \$5000, purse \$5000.

Horse	PP	1/2	3/4	Fin	Jockey	Odds
Toni Kay L	5	52	22	13	B Campbell	8.50
Alto Hopes	9	10 1/2	42	2nd	R Gonzalez	8.30
Michievous	12	44	4nd	22	K Tomlin	8.00
Trash Can Annie	7	91	42	42	R Baze	1.50
Jockey	11	11	31	52 1/2	J Castro	84.10
Prevus Lass	8	81 1/2	53	6nd	W Dene	37.80
Cou-Kitty	3	42	7 1/2	72	C Lamance	5.50
Greelul Rose	10	12	10nd	82	B Mills Jr	28.40
Alfa Andy	4	118	11	9nd	N Caplane	144.20
Luvn' You Too	6	7 1/2	94	101	D Winick	26.80
Seven Cms Eivn	31	81	11	11	J Meyer	71.00
Petelet	1	23			R Warren	5.20

Note: Poles eased Time: 25.4 : 46.7 : 12.3 : 1:40.4
1:47.4 Clear and fast Winner-B m Queen's Mustier
Lora Luvn' Toneiade: Trainer-Robert McGrath

TOMI KAY L 19.00 7.40 6.80
ALTO HOPES 6.20 5.20
MICHIEVOUS 7.40
DAILY DOUBLE (7-5) PAID \$434.40

19⁰⁰ 7⁴⁰ 6⁸⁰
6²⁰ 5²⁰

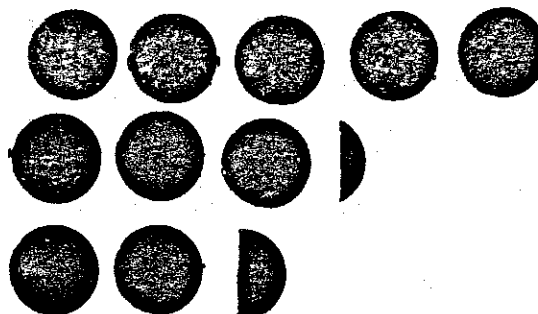
Par Energy Expenditure Selected Tomi Kay L and Alto Hopes in the 2nd Race at Golden Gate. It eschewed the First and Second betting choices, Trash Can Annie and Petelet who ran 4th and last respectively.

Had you been playing this race in one of the legal Nevada Books, the Quinella would have been \$58.90. Quinella payoffs are 1/2 the place horse's Place Mutuel X the Win Mutuel.

Energy: TOTAL

% Second Call

% 3rd Frac.

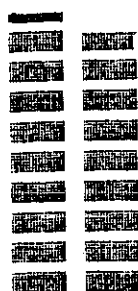


Out of the myriad of "Hossy Sayings" passed down over the years perhaps the most significant is, "There are Horses for Courses." Animal behaviorists from Pavlov to Watson, from Thorndike and Koffka to Barrera and Frankyl and Whittingham have proved this. The final three names will not be found in medical text books; but to the handicapper, training a horse to cross the finish line first is every bit as important as getting a dog to respond to the tinkling of a bell.

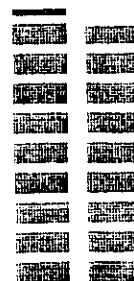
In our discussion of ENERGY EXPENDITURE we will demonstrate that tracks have Energy Pars, TOTAL, EARLY and LATE and that roughly 90% of all winners conform to these pars.

In a multiple thousand race computer study we have discovered that when a horse has a decided CLASS ADVANTAGE over the other contenders it can defy the parameters of par. It is for this reason, AND THIS REASON ALONE, that we apply our class adjustments, EARLY or SUSTAINED, in accordance to the running bias of the track.

ENERGY EXPENDITURE PIMLICO



EARLY-LATE
PROFILE PIMLICO-ROUTES



EARLY LATE
PROFILE - PIMLICO SPRINTS

The formula for determining % of Energy:

PULLERON, 1976) CLAIMING. Pure \$14,000 filly and owner, 4-year-old and up. Wt. 120 lbs. Non-winners of two races since March 1 showed 1 fig.; a race showed 2 figs. Claiming price \$25,000; for each \$2,500 to \$20,000 offered 1 lb. (Maiden, other and claiming races for \$14,000 or less not considered.)

2nd Call f/p/s +
3rd FRAC f/p/s= Total
Divide 2nd call f/p/s
By the total.
This is Early %.
Subtract this number
FROM 100 to get %Late

This is Early %.
Subtract this number
FROM 100 to get %Late.

9-KHAL ME TIP A KHAL _____ 120
4-STICKS PLEASURE _____
7-FORGOTTEN RULER _____

20K-084 4G/G1	20K-084 7G/G1	20K-084 9G/G1	20K-084 4G/G1	20K-084 7G/G1	20K-084 9G/G1	20K-084 4G/G1	20K-084 7G/G1	20K-084 9G/G1
Shai Me Tie A K/M	Sticks Pleasure	Forgotten Ruler	Cougar's Mark	Piquantly	Soft Chablis	Little Income	Curtis In White	Miss Berry
5 115 9 4	5 117 4 3	7 114 7 3	5 114 9 3	5 111 5 7	4 107 1 2	4 114 3 3	5 114 6 3	4 105 2 4
24 111 31 21	24 111 31 21	24 111 31 21	24 111 31 21	24 111 31 21	24 111 31 21	24 111 31 21	24 111 31 21	24 111 31 21
Judge J C	Rate M B	Gonaler R M	Nicolo P	Chapman T M	English L L	Diaz A L	Cornet R	Butter S J
25000	25000	25000	25000	20000	20000	25000	25000	25000

OFF AT 3:01, Start good, Was driving, Time, 227%, 144%, 157%, 1:10 Track Lead

8-KHAL ME TIE A K/MAL	4-STICKS PLEASURE	1-FOR BOTTEN RULER
430	100	100
1:00	1:00	1:00
1:00	1:00	1:00

TRACK TO TRACK VAR: ☐

$44^H = 58.92$ EARLY = 7%
 $25' = 52.38$ LATE =

 Total = $111.3/2 = 55.65$
 58.92 111.3 EARLY = 7%
 52.38 111.3 LATE = 47.07%

37.

1790830-000. (**JRN**) CLAIMING, Pure SILVER, 4-year-olds and yearlings, Non-winners at 1 mile, December 21, Waipua, 121 lbs. Non-winners place then allowed 1 lb., second allowance \$100.00, third \$75.00, fourth \$50.00.
November 15, 6 hrs. Claiming price \$20,000; if the filly offered 2 lbs. (Fills rules other than November 15, 6 hrs and considered) ONTARIO DAY, WEATHER CLOUDY, TEMPERATURE 60° FOR \$10,000 or less and considered).
DIRECT.

[illegible]

For \$11,000 (for four new computers), the city will, within the next 12 months, receive a total of 100,000 e-mails.

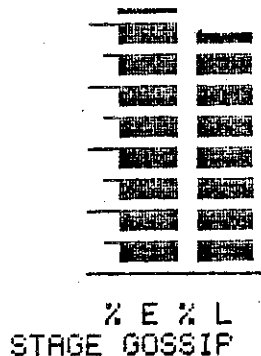
1-PAGE ANTRY	7.20	6.00	6.00
4-CIN TOLOVE		14.00	10.00
2-NUCLEAR			11.00

TOTAL: $110.94/2 = 55.47$
 $58.14 \div 110.94 \text{ Early } 52.40\%$
 $52.80 \div 110.94 \text{ Late } 47.60\%$
4.18 TRACK TO TRACK
 VARIANT

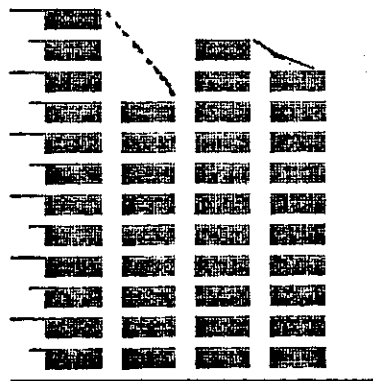
ENERGY PROFILE - STAGE GOSSIP

The handicapping experts in the Race Track Bar will tell you that there is no such thing as energy pars; that the Jockey can rate a horse to run to any energy pattern. If this were true all THE FIT HORSES in a given race would finish in a dead heat. Horses, like people, have definite, measurable behavior patterns. We have the tools to understand and capitalize on these patterns. Horses apparently don't, since they've never been known to bet on people.

AVE. % OF ENERGY EXPENDED-EARLY, LATE



When we can accept the fact that each track imposes specific energy pars, Total, %Early and % Late, we will begin looking for horses whose running style fits the pars. This horse, though seldom a winner, demonstrates a consistent % of Early Energy and % of Late Energy even though its TOTAL energy expenditure will differ markedly by distance and Class Level.



The important revelation of these charts is that STAGE GOSSIP, like most horses, extends its PERCENTAGE of Energy-Early and Late, with amazing consistency.

Its ENERGY EXPENDITURE in terms of VELOCITY (f/p/s) however, shows a much wider deviation. Several thousands of such examples in our computer bank demonstrate conclusively that horses can be conditioned (trained) to run with greater TOTAL velocity but that altering their behavior pattern (running style) is difficult.

The importance of understanding and accepting as fact the reality of Animal Behavior is so great that we will labor the point just a little longer.

Stage Gossip was our case in point. But you may argue that this horse was a mediocre plater and a poor investment risk; that a superior horse would not manifest so distinct a behavior pattern.

How about Secretariat? No thoroughbred is so universally accepted as the "greatest" as is this animal. So let's look at Secretariat's entire record in races UNDER a mile and one-quarter. I omitted them, not because they did not also reflect a pattern common with the others, but because we DO NOT use distances OVER a mile and ~~three~~ sixteenths for handicapping. When evaluating such races we equalize lines from common distances at a mile and 3/16th or less.

Secretariat's Energy Profile fills the next three pages. It falls into three cluster groups. The first six races represent one stage in the champions career; the next five, another stage. In the final three examples, two are from distances which in themselves demand different energy requirements: 5.5 furlongs and 7 furlongs. When you apply this technique you will readily see that races at 5, 5.5, 7 and 7.5 furlongs are run differently by ALL horses. Hence only ONE race, the Mile example on the third page of our Secretariat profile, deviates from the norm. You will note that even in the two LOSSES, Secretariat's energy, Early and late %, remained static. In the first six races Secretariat's Late energy at distances ranging from 6 furlongs to a mile and one-eighth had a maximal deviation of .82 In the second of the cluster groups Secretariat's maximal deviation was: .66, ...an average deviation of: .74.

Behavior Pattern
Running style 2nd Call

NORMAL DEVIATION 2ND CALL

DATE...
TRACK.. RACE NO..

DISTANCE.. 6.5

2ND CALL..... 57.27
3RD FRACTION.. 54.46

WINNERS TOTAL ENERGY.. 55.87

TRUE SPEED.. 56.15

% OF ENERGY-EARLY..... 51.26

% OF ENERGY-LATE..... 48.74

DATE...
TRACK.. RACE NO..

DISTANCE.. 6

2ND CALL..... 57.39
3RD FRACTION.. 53.66

WINNERS TOTAL ENERGY.. 55.53

TRUE SPEED.. 56.09

% OF ENERGY-EARLY..... 51.68

% OF ENERGY-LATE..... 48.32

DATE...
TRACK.. RACE NO..
ROUTE 1 MILE
DISTANCE.. 8

2ND CALL..... 56.17
3RD FRACTION.. 53.88

WINNERS TOTAL ENERGY.. 55.03

TRUE SPEED.. 55.58

% OF ENERGY-EARLY..... 51.04

% OF ENERGY-LATE..... 48.96

DATE...
TRACK.. RACE NO.. MILE 1/8TH
MILE 1/8TH
DISTANCE.. 9

2ND CALL..... 57.14
3RD FRACTION.. 54.85

WINNERS TOTAL ENERGY.. 56

TRUE SPEED.. 56.36

% OF ENERGY-EARLY..... 51.02

% OF ENERGY-LATE..... 48.98

DATE...
TRACK.. RACE NO..
MILE 1/8TH SEC. LOST
DISTANCE.. 9

2ND CALL..... 55.7
3RD FRACTION.. 51.7

TOTAL ENERGY.. 53.7

TRUE SPEED.. 54.3

% OF ENERGY-EARLY..... 51.86

% OF ENERGY-LATE..... 48.14

DATE...
TRACK.. RACE NO..
ROUTE 8.5 FUR
DISTANCE.. 8.5

2ND CALL..... 54.55
3RD FRACTION.. 51.89

WINNERS TOTAL ENERGY.. 53.22

TRUE SPEED.. 53.74

% OF ENERGY-EARLY..... 51.25

% OF ENERGY-LATE..... 48.75

DATE...
TRACK.. RACE NO..
SECRETARIAT LOST ✓
DISTANCE.. 9

2ND CALL..... 54.02
3RD FRACTION.. 53.08

TOTAL ENERGY.. 53.55

TRUE SPEED.. 53.71

% OF ENERGY-EARLY..... 50.44

% OF ENERGY-LATE..... 49.56 8

DATE...
TRACK.. RACE NO..

DISTANCE.. 6.5

2ND CALL..... 56.65
3RD FRACTION.. 55.74

WINNERS TOTAL ENERGY.. 56.2

TRUE SPEED.. 56.3

% OF ENERGY-EARLY..... 50.4

% OF ENERGY-LATE..... 49.6 08

DATE...
TRACK.. RACE NO.. PREAKNESS
MI 3/16THS
DISTANCE.. 9.5

2ND CALL..... 55.46
3RD FRACTION.. 53.72

WINNERS TOTAL ENERGY.. 54.59

TRUE SPEED.. 54.81

% OF ENERGY-EARLY..... 50.8

% OF ENERGY-LATE..... 49.2

DATE...
TRACK.. RACE NO..

DISTANCE.. 6

2ND CALL..... 56.05
3RD FRACTION.. 55.7

WINNERS TOTAL ENERGY.. 55.88

TRUE SPEED.. 55.93

% OF ENERGY-EARLY..... 50.16

% OF ENERGY-LATE..... 49.84 32

DATE...
TRACK.. RACE NO..

DISTANCE.. 6

2ND CALL..... 57.14
3RD FRACTION.. 55.46

WINNERS TOTAL ENERGY.. 56.3

TRUE SPEED.. 56.57

% OF ENERGY-EARLY..... 50.75

% OF ENERGY-LATE..... 49.25 15

DATE...
TRACK.. RACE NO..
MILE
DISTANCE.. 8..

2ND CALL..... 57.73
3RD FRACTION.. 53.23

WINNERS TOTAL ENERGY.. 55.48

TRUE SPEED.. 56.53

% OF ENERGY-EARLY..... 52.03

% OF ENERGY-LATE..... 47.97

DATE...
TRACK.. RACE NO..
7 FUR.
DISTANCE.. 7

2ND CALL..... 58.15
3RD FRACTION.. 52.38

WINNERS TOTAL ENERGY.. 55.27

TRUE SPEED.. 55.53

% OF ENERGY-EARLY..... 52.61

% OF ENERGY-LATE..... 47.39

DATE...
TRACK.. RACE NO..

DISTANCE.. 5.5

2ND CALL..... 55
3RD FRACTION.. 57.23

WINNERS TOTAL ENERGY.. 56.12

TRUE SPEED.. 55.59

% OF ENERGY-EARLY..... 49.01

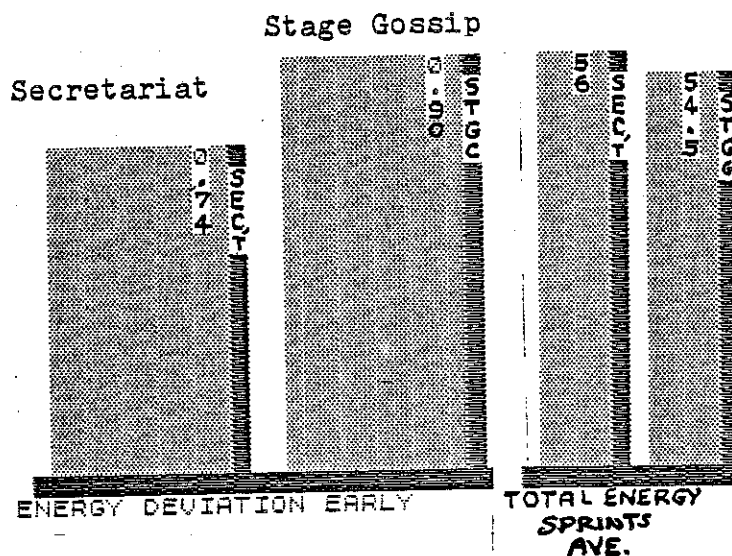
% OF ENERGY-LATE..... 50.99

ADD
BOTH
THEN
DIVIDE BY 2

1/2 C
% TOTAL

405

STAGE GOSSIP'S Ave. deviation, in the races where it was contending was....90! \longleftrightarrow I underline and emphasize these figures because they are the keys to the future of successful handicapping. The researchers who tested this adaptation of the methodology are employing the factors of win energy pars in relationship to horse behavior patterns with an amazing win consistency hovering close to 80%-AVERAGE.



Naturally, when a race is devoid of contenders that truly fit the par model it is best to pass or regard it as a speculative risk. On an average there are 4 playable races per 9 race card that qualify according to the model,

TOM BROHAMER

The space we have dedicated to this subject should not lead you to think it is a difficult process to apply. Tom Brohamer, of Pirco, has reduced it to a formula that takes but a few minutes each day. The final section of Factor Analysis, part I, is dedicated to TOM'S own explanation of making win energy and Par Energy % fast and easy.

ENERGYAMALICO

CLASS: 14000 CLM. 4YO UP-OG

$1\frac{1}{16}$

2ND	FIN	TTL	EARLY	LATE
54.17	51.40	52.79	51.31	48.69
AVG	AVG	AVG	AVG	AVG
54.17	51.40	52.79	51.31	48.69

 $1\frac{1}{16}$

CLASS: 17000CL F-M

2ND	FIN	TTL	EARLY	LATE
55.58	51.36	53.47	51.97	48.03
AVG	AVG	AVG	AVG	AVG
55.58	51.36	53.47	51.97	48.03

 $1\frac{1}{16}$

CLASS: 27000 AW. 3YO

2ND	FIN	TTL	EARLY	LATE
54.62	52.72	53.67	50.89	49.11
AVG	AVG	AVG	AVG	AVG
54.62	52.72	53.67	50.89	49.11

6f CLASS: 9500 AW. 3YO

2ND	FIN	TTL	EARLY	LATE
56.17	54.10	55.14	50.94	49.06
AVG	AVG	AVG	AVG	AVG
56.17	54.10	55.14	50.94	49.06

 $1\frac{1}{16}$

CLASS: 18000 AW. 4YO UP

2ND	FIN	TTL	EARLY	LATE
55.15	51.89	53.52	51.52	48.48
AVG	AVG	AVG	AVG	AVG
55.15	51.89	53.52	51.52	48.48

CLASS: 17000 AW. 4YO UP

6f

2ND	FIN	TTL	EARLY	LATE
56.53	54.32	55.43	51.00	49.00
AVG	AVG	AVG	AVG	AVG
56.53	54.32	55.43	51.00	49.00

CLASS: 30000HAND. 3YO UP

6f

2ND	FIN	TTL	EARLY	LATE
56.84	53.33	55.09	51.59	48.41
AVG	AVG	AVG	AVG	AVG
56.84	53.33	55.09	51.59	48.41

CLASS: 14000CLM. 3YO

6f

2ND	FIN	TTL	EARLY	LATE
56.11	50.87	53.49	52.45	47.55
AVG	AVG	AVG	AVG	AVG
56.11	50.87	53.49	52.45	47.55

SANTA ANITACLASS: 40000 CLM 6FUR F-M 4YO UP

2ND	FIN	TTL	EARLY	LATE
57.83	54.21	56.02	51.62	48.38
AVG	AVG	AVG	AVG	AVG
57.83	54.21	56.02	51.62	48.38

CLASS: 27000 AW. 7FUR 3YO

2ND	FIN	TTL	EARLY	LATE
58.15	52.94	55.55	52.34	47.66
AVG	AVG	AVG	AVG	AVG
58.15	52.94	55.55	52.34	47.66

TURSCLASS: 9FU 36000 AW. F-M 4YO UP

2ND	FIN	TTL	EARLY	LATE
55.46	53.51	54.49	50.89	49.11
AVG	AVG	AVG	AVG	AVG
55.46	53.51	54.49	50.89	49.11

CLASS: 8.5 FUR 20000 CLM 4 YO UP

2ND	FIN	TTL	EARLY	LATE
55.38	49.55	52.47	52.78	47.22
AVG	AVG	AVG	AVG	AVG
55.38	49.55	52.47	52.78	47.22

CLASS: 180000 STKS 4 YO UP 9fur.

2ND	FIN	TTL	EARLY	LATE
55.77	53.51	54.64	51.03	48.97
AVG	AVG	AVG	AVG	AVG
55.77	53.51	54.64	51.03	48.97

CLASS: 8.5FUR 50000 CLM. 4 YO UP

2ND	FIN	TTL	EARLY	LATE
56.25	50.30	53.28	52.79	47.21
AVG	AVG	AVG	AVG	AVG
56.25	50.30	53.28	52.79	47.21

COMPARITNE ENERGY GOLDEN GATE

GG 8.5F 10000CLM. FM 4YO UP
DISTANCE..8.5

2ND CALL.....55.77
3RD FRACTION..50
WINNERS TOTAL ENERGY..52.35
■ / ■ OF ENERGY-EARLY..52.73
■ / ■ OF ENERGY-LATE...47.27

GG 1MIL 16000 AW. FIL 3YO
DISTANCE..8

2ND CALL.....55.31
3RD FRACTION..51.15
WINNERS TOTAL ENERGY..53.24
■ / ■ OF ENERGY-EARLY..51.95
■ / ■ OF ENERGY-LATE...43.05

GG 6F 8500 CLM. FM 4YO UP
DISTANCE..6

2ND CALL.....57.39
3RD FRACTION..51.16
WINNERS TOTAL ENERGY..54.25
■ / ■ OF ENERGY-EARLY..52.87
■ / ■ OF ENERGY-LATE...47.13

GG.8.5F 25000 CLM. 4YO UP
DISTANCE..8.5

2ND CALL.....56.57
3RD FRACTION..50.3
WINNERS TOTAL ENERGY..53.44
■ / ■ OF ENERGY-EARLY..52.93
■ / ■ OF ENERGY-LATE...47.07

GG 6F 8500 CL 4YO UP
DISTANCE..6

2ND CALL.....58.15
3RD FRACTION..52.8
WINNERS TOTAL ENERGY..55.43
■ / ■ OF ENERGY-EARLY..52.41
■ / ■ OF ENERGY-LATE...47.59

GG 9F 4YO UP 8500 CLM.
DISTANCE..9

2ND CALL.....55.93
3RD FRACTION..49.01
WINNERS TOTAL ENERGY..52.47
■ / ■ OF ENERGY-EARLY..53.3
■ / ■ OF ENERGY-LATE...45.7

GG 6F 12500 CL 4YO UP
DISTANCE..6

2ND CALL.....58.41
3RD FRACTION..52.38
WINNERS TOTAL ENERGY..55.4
■ / ■ OF ENERGY-EARLY..52.72
■ / ■ OF ENERGY-LATE...47.28

GG 25000 CL 8.5F
DISTANCE..8.5

2ND CALL.....55.77
3RD FRACTION..51.56
WINNERS TOTAL ENERGY..53.57
■ / ■ OF ENERGY-EARLY..51.96
■ / ■ OF ENERGY-LATE...48.04

COMPARATIVE ENERGY SANTA ANITA

8.5F 16000 CLM4YO UP

DISTANCE..8.5

2ND CALL.....55.45
3RD FRACTION..50

WINNERS TOTAL ENERGY.52.73

■ / ■ OF ENERGY-EARLY..52.59

■ / ■ OF ENERGY-LATE...47.41

8.5F 3YO 33000 AU.

DISTANCE..8.5

2ND CALL.....56.25
3RD FRACTION..50

WINNERS TOTAL ENERGY.53.13

■ / ■ OF ENERGY-EARLY..52.94

■ / ■ OF ENERGY-LATE...47.05

1MLE 4YO UP CLM. 10000

DISTANCE..8

2ND CALL.....55
3RD FRACTION..50

WINNERS TOTAL ENERGY.52.5

■ / ■ OF ENERGY-EARLY..52.36

■ / ■ OF ENERGY-LATE...47.62

6.5F 26000 AU.FM 4YO UP

DISTANCE..6.5

2ND CALL.....56.41
3RD FRACTION..51.56

WINNERS TOTAL ENERGY.54.99

■ / ■ OF ENERGY-EARLY..53.11

■ / ■ OF ENERGY-LATE...46.89

6.5F 20000CLM. FM 4YO UP

DISTANCE..6.5

2ND CALL.....56.93
3RD FRACTION..49.11

WINNERS TOTAL ENERGY.54.02

■ / ■ OF ENERGY-EARLY..54.34

■ / ■ OF ENERGY-LATE...45.46

6F 25000 CLM 4YO UP

DISTANCE..6

2ND CALL.....56.93
3RD FRACTION..49.25

WINNERS TOTAL ENERGY.54.09

■ / ■ OF ENERGY-EARLY..54.47

■ / ■ OF ENERGY-LATE...45.53

8F25000 CLM FIL 3YO

DISTANCE..6

2ND CALL.....56.15
3RD FRACTION..50

WINNERS TOTAL ENERGY.54.06

■ / ■ OF ENERGY-EARLY..53.77

■ / ■ OF ENERGY-LATE...46.23

9F 28000CLM. 4YOUP

DISTANCE..9

2ND CALL.....56.31
3RD FRACTION..52.36

WINNERS TOTAL ENERGY.53.35

■ / ■ OF ENERGY-EARLY..51.36

■ / ■ OF ENERGY-LATE...46.64

2
CLASS: TRACK TO TRACK PIMLICO-BOW
IE

PIMLICO - ROUTE (1 1/16)

2ND	FIN	TTL	EARLY	LATE
55.46	51.24	53.35	51.98	48.02
54.85	49.40	52.13	52.61	47.39
AVG	AVG	AVG	AVG	AVG
55.16	50.32	52.74	52.30	47.71

BOWIE 8.5 FUR

2ND	FIN	TTL	EARLY	LATE
53.51	47.97	50.74	52.73	47.27
53.37	49.11	51.24	52.08	47.92
54.10	49.70	51.90	52.12	47.88
54.85	50.61	52.73	52.01	47.99
AVG	AVG	AVG	AVG	AVG
53.96	49.35	51.65	52.24	47.77

BOWIE GETS A 1.09
LESS 20% CREDIT

TRACK TO TRACK AD7 @ 1 1/16
+.89 for Bowie

PIMLICO

6f

CLASS: ALL 3-4YO

2ND	FIN	TTL	EARLY	LATE
55.58	51.36	53.47	51.97	48.03
56.17	54.10	55.14	50.94	49.06
55.35	56.65	56.00	49.42	50.58
56.84	53.33	55.09	51.59	48.41
56.15	50.81	53.48	52.50	47.50
AVG	AVG	AVG	AVG	AVG
56.02	53.25	54.64	51.28	48.72

PIMLICO

MILE 1/16

CLASS: ALL 3-4YO

2ND	FIN	TTL	EARLY	LATE
54.17	51.40	52.79	51.31	48.69
55.46	50.93	53.20	52.13	47.87
55.15	51.89	53.52	51.52	48.48
AVG	AVG	AVG	AVG	AVG
54.93	51.41	53.17	51.65	48.35

FACTOR ANALYSIS

PIMLICO/BOWIE

pimlico
sprint

CLASS:10000CLM. C-G 3-4 YOU

2ND	FIN	TTL	EARLY	LATE
56.65	51.97	54.31	52.15	47.85
AVG	AVG	AVG	AVG	AVG
56.65	51.97	<u>54.31</u>	52.15	47.85

Bowie
Sprint

CLASS:10000 CLM. 3-4YO

2ND	FIN	TTL	EARLY	LATE
56.90	51.97	54.44	52.26	47.74
AVG	AVG	AVG	AVG	AVG
56.90	51.97	<u>54.44</u>	52.26	47.74

Pimlico
Route

CLASS:10000 CLM. 3-4YO

2ND	FIN	TTL	EARLY	LATE
54.70	50.00	52.35	52.24	47.76
AVG	AVG	AVG	AVG	AVG
54.70	50.00	<u>52.35</u>	52.24	47.76

Bowie
Route

CLASS:10000 CLM. 3-4 YO

2ND	FIN	TTL	EARLY	LATE
53.51	50.30	51.91	51.55	48.45
AVG	AVG	AVG	AVG	AVG
53.51	50.30	<u>51.91</u>	51.55	48.45

BOWIE:AVE. DAILY VARIANT: 28

PIMLICO:AVE. DAILY VARIANT:20

PIMLICO-BOWIE TRACK TO TRACK:
SPRINTS=0
ROUTES: BOWIE +.35
ADD .50 TO ABOVE TO ADJUST FOR
BOWIE'S HIGHER AVE. DAILY VARIANT

THE PURDY REPORT

Bob Purdy, Jr. is the official Datastician for the Institute and for PIRCO. His giant North Star and IBM computer systems with D Base II and other even more advanced data-keeping resources, make it possible for him to enter the past performance and RESULTS of every race, every day for each track in the Form(s). By phone call or through direct modem access we can ask Bob's computers for almost anything we want. For instance, if we need to know the average position of 6 furlongs winners at the second call at Santa Anita for the month of April, we get the answer in about four minutes. On the following pages we present some important read-outs from Bob's voluminous data.

The first section deals with PAR ENERGY. Note that the TOTAL ENERGY figures are all in the hundreds. This is NOT a speed rating but, rather, the total of 2nd call and 3rd fraction f/p/s velocity. This is the number used to divide INTO (a) 2nd Call f/p/s velocity to get PERCENTAGE of Early energy; and ^(b) divided INTO 3rd fraction f/p/s velocity to get PERCENTAGE of Late energy.

The second section deals with Daily Variant. The designation, "Variant Energy" means Total energy in f/p/s at the distance on that particular day.

Keeping such records with or without a computer is a simple process taking about twenty minutes (tops) a day. But even as a journey of a thousand miles begins with a single step, so is it that you must begin somewhere. Start with today's RESULTS CHARTS and work forward. Remember, the most important statistic in predicting winners is What happened yesterday- NOT what took place last month. Within a few weeks YOU will have a data bank for your track as useful as Bob's.

S A N T A A N I T A
P A R E N E R G Y C A L C U L A T I O N S

Sex = F/M Distance = 6.0 Furlongs Surface = Dirt

CLASS	AGE	CLPRICE	RACES	TOTAL ENERGY	% EARLY	% LATE
-----	---	-----	-----	-----	-----	-----
MCL	2 3		24	107.83	53.41	46.59
MCL	3+ 4+		5	107.97	53.38	46.62
MDN	2 3		23	109.53	52.96	47.04
MDN	3+ 4+		6	108.75	53.19	46.81
NW1	2 3		9	110.24	52.96	47.04
NW1	3+ 4+		9	110.90	52.58	47.42
NW2	2 3		1	109.16	53.14	46.86
NW2	3+ 4+		6	111.12	52.73	47.27
NW3	3+ 4+		6	111.12	52.73	47.27
CLA	3+ 4+		2	110.50	52.79	47.21
STK	2 3		2	110.06	52.77	47.23
STK	3+ 4+		1	112.45	52.28	47.72
CLM	3+ 4+	10 12.5	12	108.44	53.11	46.89
CLM	2 3	16 20	3	108.02	53.00	47.00
CLM	3+ 4+	16 20	4	108.21	53.16	46.84
CLM	2 3	25 32	9	108.20	53.27	46.73
CLM	3+ 4+	25 32	8	109.48	52.81	47.19
CLM	2 3	40 50	6	108.38	53.69	46.31
CLM	3+ 4+	40 50	6	109.72	52.87	47.13

SANTA ANITA
RUNNING ON THE GREEN

Sex = Colts & Geldings

CLASS	AGE	CLPRICE	RACES	TOTAL ENERGY	% EARLY	% LATE
-----	----	-----	-----	-----	-----	-----
Dist = 9.0 F NW2	2 3		1	106.57	51.62	48.38
NW2	3+ 4+		3	106.68	51.50	48.50
Dist = 6.5 F NW3	3+ 4+		5	112.07	52.75	47.25
Dist = 9.0 F NW3	3+ 4+		4	106.99	50.86	49.14
Dist = 6.5 F NW4	3+ 4+		1	113.16	52.66	47.34
Dist = 9.0 F NW4	3+ 4+		3	108.52	51.03	48.97
Dist = 6.5 F CLA	3+ 4+		5	112.61	52.86	47.14
Dist = 9.0 F CLA	3+ 4+		9	107.83	50.91	49.09
Dist = 6.5 F STK	3+ 4+		1	113.65	52.56	47.44
Dist = 9.0 F STK	2 3		1	107.14	51.11	48.89
STK	3+ 4+		3	108.96	50.44	49.56
Dist = 6.5 F CLM	3+ 4+	80 100	3	112.97	52.76	47.24
Dist = 9.0 F CLM	3+ 4+	80 100	5	108.07	50.95	49.05

S A N T A A N I T A
D I R T R A C E S
V A R I A N T E N E R G Y L I S T E D B Y D A T E S

=====

DATE	RACE	DISTANCE	CLM PRC	VARIANT ENERGY
05/10/83	1	6.0	12.5	53.26
	2	6.0	0.0	53.20
	3	8.5	20.0	52.13
	5	8.5	0.0	52.58
	6	8.0	0.0	53.47
	7	8.0	0.0	54.13
	8	6.5	0.0	55.15
	9	8.5	25.0	52.88

06/10/83	1	6.0	25.0	54.48
	2	8.5	32.0	52.88
	3	8.5	10.0	52.73
	5	6.0	0.0	54.59
	7	8.5	0.0	52.81
	8	6.0	0.0	55.73
	9	8.5	16.0	51.90

07/10/83	1	6.5	12.5	54.07
	2	6.0	20.0	54.66
	3	8.5	32.0	51.13
	4	8.5	25.0	52.58
	5	8.5	0.0	53.67
	6	6.0	0.0	54.46
	7	6.0	0.0	55.22
	8	6.0	0.0	55.73
	9	8.5	16.0	53.76

08/10/83	1	6.0	20.0	55.82
	2	8.5	0.0	52.73
	3	6.5	32.0	59.27
	4	6.5	50.0	54.67
	5	8.5	0.0	53.35
	7	6.0	0.0	56.29
	8	8.5	0.0	53.67
	9	8.5	40.0	53.67

09/10/83	1	6.0	12.5	54.66
	2	8.5	0.0	52.54
	3	8.0	62.5	53.35
	5	6.0	0.0	55.27
	6	8.5	0.0	53.46
	7	6.0	0.0	55.65
	8	8.5	0.0	54.40
	9	8.5	50.0	53.43

D E L M A R

T U R F R A C E S

DATE	RACE	DISTANCE	RC TYPE	HR CLASS	CLM PRC	VARIANT	ENGY
------	------	----------	---------	----------	---------	---------	------

04/09/83	7	7.5	ALW	65RT			54.46
05/08/83	5	7.5	ALW	67RT			54.46
22/08/83	7	7.5	ALW	71RT			55.57
25/08/83	8	7.5	ALW	73RT			55.19

THE AVERAGE Var.En. FOR THIS CLASS AND DISTANCE IS -----> 54.92

28/07/83	5	8.0	ALW	61RT			54.19
04/08/83	5	8.0	ALW	62RT			53.90
15/08/83	5	8.0	ALW	64RT			53.84
07/08/83	3	8.0	ALW	65RT			53.96
07/08/83	9	8.0	ALW	65RT			53.43
18/08/83	8	8.0	ALW	68RT			53.43

THE AVERAGE Var.En. FOR THIS CLASS AND DISTANCE IS -----> 53.79

11/08/83	7	8.5	ALW	58RD			53.36
29/07/83	5	8.5	ALW	58RT			52.83
04/08/83	7	8.5	ALW	61RT			53.42
28/08/83	5	8.5	ALW	61RT			53.63
17/08/83	5	8.5	ALW	61RT			53.51
27/08/83	7	8.5	ALW	62RT			53.27
13/08/83	5	8.5	ALW	62RT			53.51
03/08/83	7	8.5	ALW	64RT			52.98
31/07/83	5	8.5	ALW	65RT			53.44
18/08/83	5	8.5	ALW	65RT			52.96
01/08/83	8	8.5	ALW	68RT			53.83
30/07/83	5	8.5	ALW	68RT			53.04
10/09/83	5	8.5	ALW	68RT			53.53
03/09/83	7	8.5	ALW	68RT			53.79
20/08/83	3	8.5	ALW	68RT			53.72
05/08/83	8	8.5	ALW	71RT			53.60
29/07/83	7	8.5	ALW	73RT			54.29
14/08/83	5	8.5	ALW	73RT			54.27
12/08/83	8	8.5	ALW	73RT			54.02

THE AVERAGE VAR.EN. FOR THIS CLASS AND DISTANCE IS -----> 53.52

08/08/83	5	9.0	ALW	62RT			53.81
05/09/83	7	9.0	ALW	62RT			52.63
21/08/83	3	9.0	ALW	65RT			53.88
08/08/83	7	9.0	ALW	68RT			53.68
02/09/83	7	9.0	ALW	73RT			53.73

THE AVERAGE VAR.ENGY FOR THIS CLASS AND DISTANCE IS -----> 53.54

D E L M A R
D I R T R A C E S
VARIANT ENERGY - LISTED BY DATES

=====

DATE	RACE	DISTANCE	CLM PRC	VAR. ENGY.
=====				
27/07/83	1	8.5	12.5	52.65
	2	6.0	20.0	53.64
	3	8.0	0.0	52.81
	4	6.0	0.0	54.08
	5	7.5	0.0	55.13
	7	6.0	0.0	55.22
	8	7.5	0.0	55.44
	9	7.5	62.5	55.07
	28/07/83	1	6.0	16.0
2		6.0	32.0	53.67
3		6.0	32.0	53.70
4		8.5	32.0	51.31
5		8.0	0.0	54.19
6		6.0	0.0	53.14
7		6.0	0.0	54.35
8		8.0	0.0	52.86
9		8.5	16.0	51.61
29/07/83	1	6.0	10.0	53.45
	2	6.0	10.0	54.23
	3	6.0	50.0	54.73
	5	8.5	0.0	52.83
	6	8.5	0.0	51.69
	7	8.5	0.0	54.29
	9	8.5	40.0	52.05
	30/07/83	1	8.5	10.0
2		8.5	0.0	52.58
3		6.0	20.0	54.33
5		8.5	0.0	53.04
6		8.5	0.0	52.35
7		6.0	0.0	54.35
8		8.5	0.0	53.61
9		8.0	0.0	52.88
31/07/83		1	8.5	25.0
	2	6.0	32.0	55.31
	3	6.0	0.0	54.64
	5	8.5	0.0	53.44
	6	6.0	0.0	54.40
	7	8.5	80.0	52.43
	8	6.0	0.0	57.00
	9	8.5	20.0	52.35

GRASS RACING
AND...TURF-DIRT DIRT TO TURF

It was once thought that Breeding was an essential ingredient in handicapping turf races. We once made an extensive turf breeding list and applied adjustment figures relative to the win records of the progeny of certain stallions, broodmares and broodsires. It had some merit at major tracks but not enough to keep it current or to utilize with sufficient dependability to recommend it to YOU.

Subsequent studies have demonstrated that the key to Successful handicapping of grass events is to know and use GRASS ENERGY PARS.

Use WINNERS times. Do enough grass races at each distance run on the grass at YOUR track(s) to get an index for TOTAL ENERGY, % of energy EARLY and LATE. No less than seven races at each distance is MANDATORY. Throw out the high and the low and average the remaining five.

Any self-respecting mathematician will scoff at such a small sampling, true. Yet you'll find it amazingly representative since the horses never studied math. Keep monitoring All the grass races in your circuit for subtle changes -seasonal and weather variances.

On the following page we have included some energy averages from a small sampling at various North American Turf courses. Compare these with samplings from dirt surfaces and you will see a decided trend toward SUSTAINED PACE on the grass. Even when turf horses go wire to wire they ration their energy far more evenly than dirt runners. This is one of the most clear-cut DEMANDS of a TURF SURFACE.

The key, then, to rating dirt horses going to the grass for the first time and Turf horse going on the dirt is FIRST: Make a Dirt track variant just as if it were another track ALTOGETHER. Next, make a Turf track variant for the same distances. The procedure is EXACTLY the same as you use for making track-to-track variants. At most tracks you will find that TURF velocity is HIGHER than dirt. Belmont is one exception, as are several Eastern Tracks where the grass seed and manicure is similar to that of British tracks: cushiony deep. Apply your variant just as you

would a track to track variant, equalizing the two surfaces.

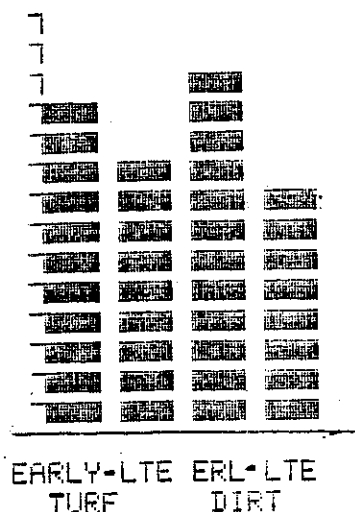
Remember that the Form's daily variant has little, if any, application on the turf! Fortunately, there is less deviation between firm and firm, and yielding and yielding, etc., on the turf than there is between fast and fast, et al, on the dirt. Also, most turf races are run at the higher classes and as such are less subject to daily vagaries.

The key to measuring a dirt runner going on the turf and vice/versa is ENERGY EXPENDITURE.

When a turf horse habitually runs too fast too early to win on the turf it will frequently be switched to the dirt in order to capitalize on its behavior pattern. Conversely, when a dirt runner proves to be a habitual closer it is often switched to the turf where AT MOST TRACKS its prospect of winning are greater. Bear in mind that Turf Races are more difficult to enter than dirt events -there are fewer of them; AND that taking a horse from turf to dirt is a major decision not made lightly. Dirt is much harder on the horse, so switches are made for GOOD REASON! STUDY the animal's running style!

THIS IS USUALLY THE KEY TO THE SWITCH-especially from turf to dirt.

TYPICAL RUNNING PATTERNS-DIRT & TURF



SAMPLE - TURF ENERGY

WINNER PROFILE

Del Mar-Turf

HORSE # :DISTANCE 8.5

 2ND CALL 54.85
 3RD FRACTION 51.56

 WINNERS TOTAL ENERGY 53.205

% OF ENERGY-EARLY 51.54

% OF ENERGY-LATE 48.46

Hollywood-Turf

HORSE # :DISTANCE 8.5

 2ND CALL 55.7
 3RD FRACTION 53.75

 WINNERS TOTAL ENERGY 54.72

% OF ENERGY-EARLY 50.89

% OF ENERGY-LATE 49.11

SA-Turf

HORSE # :DISTANCE 8.5

 2ND CALL 55.46
 3RD FRACTION 53.23

 WINNERS TOTAL ENERGY 54.345

% OF ENERGY-EARLY 51.03

% OF ENERGY-LATE 48.97

BELMONT-TURF

 HORSE # :DISTANCE 8.5

 2ND CALL 55.62
 3RD FRACTION 51.89

 WINNERS TOTAL ENERGY 53.75

% OF ENERGY-EARLY 51.74

% OF ENERGY-LATE 48.27

TUP Turf

HORSE # :DISTANCE 8

 2ND CALL 52.73
 3RD FRACTION 50.97

 WINNERS TOTAL ENERGY 51.845

% OF ENERGY-EARLY 50.85

% OF ENERGY-LATE 49.15

Laurel-Turf

HORSE # :DISTANCE 9

 2ND CALL 52.52
 3RD FRACTION 50.77

 WINNERS TOTAL ENERGY 51.645

% OF ENERGY-EARLY 50.85

% OF ENERGY-LATE 49.15

Golden Gate-Turf

HORSE # :DISTANCE 8

 2ND CALL 55.08
 3RD FRACTION 55.7

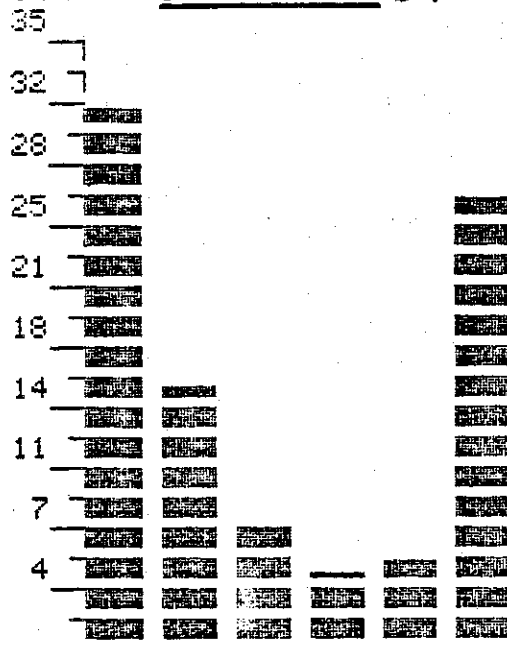
 WINNERS TOTAL ENERGY 55.385

% OF ENERGY-EARLY 49.72

% OF ENERGY-LATE 50.28

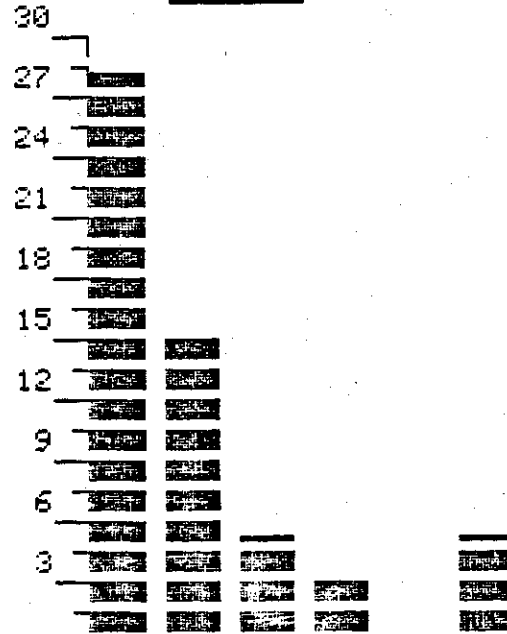
THE BROHAMER MODEL

FACTOR W AT SIX FURLONGS S.A. MARCH '84



TOTL 1ST 2ND 3RD 4TH TOP 4
27 OF 31 WINNERS WERE IN TOP 4 'W' = **87%**

FACTOR W IN ROUTES S.A. MARCH-'84



TOTL 1ST 2ND 3RD NOT IN TOP 4
85.1% IN TOP THREE FW-14.9% OVER 4TH



THE BROHAMER MODEL

The foundation for the BROHAMER MODEL was laid in the five page supplement to the Phase III manual, "KNOW THY TRACK." A simple method for doing a daily regression on WINNING FACTORS by track was outlined.

Regression simply means tracing backward to find what factors did what under a given set of circumstances or conditions. This simplistic a form of regression would not be acceptable to professional mathematicians or statisticians surveying the eating habits of the population of Iowa, or the average lifetime of a Ford Motor. But its practical application in handicapping has proven itself over several thousand races at every level track in North America. There are a few handicapping conservatives who will accept nothing under a quarter of a million samplings before they accept anything as fact. But most of these people died before making their first wager.

To refresh the minds of those owning the Complete Phase III Manual and to provide background for those reading it for the first time, we have reproduced the supplemental material on the following page. It is important to remember that when your Pace Line selection has been representative, the TOP 4 (and ties) FACTOR W ratings produce 87% of ALL winners. (This is the most recent statistic). The BROHAMER MODEL is designed to accurately predict which TWO of the four will produce TODAY'S WINNER.

"KNOW THY TRACK"
COMPUTER MANUAL SUPPLEMENT
FINDING A PROPERLY BALANCED
FACTOR "W" RATING

We have stressed the importance of BALANCE in using Factor W as a predictor. By balance we mean the numerical differential between EP and SP, the two quantities that are the basis of the Factor W formula. A perfectly balanced W would be: EP=55. SP=55. The difference between them is Zero and the resultant Factor W would be 55, NOT high enough to win many races, but perfectly balanced. The most effective way to employ Factor W as a single read-out selection tool is to take the TOP FOUR Factor W horses in the race, evaluate their balance and bet the TOP TWO. You evaluate their balance in accordance with the Early Speed Bias of the TRACK YOU ARE PLAYING. We will use the four Horses Below as our example. They all ran their 6 furlong race in 1:10. They all have a class adjustment of .69. Here are the differentials in their Factor W balance:

A: = 2.94 B: = 2.78 C: = 2.15 D: = 3.17

A and D have the greatest IMBALANCE, so B and C would be the choices. RIGHT? NOT necessarily. NOT at a 1.3 or higher EARLY SPEED track such as Del Mar where A and D would get the nod. At a 1.1 Track there would be little question about choosing B and C. They would also be the choices at MOST 1.2 tracks. However, referring to our discussion of tracks like Hollywood, Aqueduct, Belmont, Golden Gate and others where a horse MUST be within striking distance at all points beyond the first call, I would take a hard look at Factor XW, which is simply W averaged with X (1+3). Despite a higher WX rating, we would throw out D because it earned BOTH its W and its X ratings from a single burst of velocity: The first fraction. D's second fraction shows the LOWEST velocity of the four. This means it started to decelerate sharply

well BEFORE the half-mile point. Hence, it is not a viable contender at a 1.2 or 1.1 track. Thus, at those tracks that require a contender to be within striking distance at the second call AND have a Sustained Kick, A and B would be the choices.

SUMMARY OF CHOICES

EARLY SPEED (1.3 and over) TRACKS	FAVOR	A and D
SUSTAINED PACE (1.1) TRACKS	FAVOR	B and C
AVERAGE PACE (1.2) TRACKS*	FAVOR	A and B

*Also Belmont, nominally
a 1.1 track

SINGLE HORSE MOST LIKELY TO BE IN THE MONEY AT ANY TRACK: A Why? A had the smoothest deceleration. Note its first three fractions. The horse was not pushed. It probably has lots of energy left. It should be capable of improving on its last effort. B had the second smoothest ride.

HORSE "A"		HORSE "B"		HORSE "C"		HORSE "D"	
60.00	1F	59.55	1F	58.41	1F	60.55	1F
57.39	2F	57.61	2F	57.83	2F	57.17	2F
52.80	FF	53.00	FF	53.80	FF	52.48	FF
58.67 L	EP #2	58.56 L	EP #3	58.11 L	EP #4	58.82 L	EP #1
55.73	SP #3	55.78	SP #2	55.96 L	SP #1	55.65 L	SP #4
56.40	FX	56.27	FX	56.10	FX	56.52	FX
56.57	TS	56.57	TS	56.57	TS	56.54	TS
59.45	RFW	59.38	RFW	59.12	RFW	59.51	RFW
60.14	RFW #2	60.07 L	RFW #3	59.81 L	RFW #4	60.20 L	RFW #1
<u>58.27</u>	WX (2)	<u>58.17</u>	WX (3)	<u>57.95</u>	WX (4)	<u>58.36</u>	WX (0)

KNOW YOUR TRACK

Here is a simple way to tell how your track is running at any given time. Take the daily result charts, as on page 5. Note where THE WINNER was at the second Call. A pattern will begin to emerge that will tell you whether Early speed is hanging on or if winners are coming from JUST off the pace or from FAR off the pace. In reviewing over 20,000 races we have determined that Tracks DO show a recognizable running pattern. It is not always the same for sprints as for routes or Turf, but it is reflected by the running position of the winning horse at the SECOND CALL, regardless of distance or surface. In the examples on the following page Note the second call of each race. In a sprint second call is the second running column. In a route, the third.

(Result Charts only)

1. In the first example Bright Isle came from $2\frac{1}{2}$ lengths off the opening pace to assume a 4 length lead at the 2nd call. This is a route race. It is the first race of the day. So, in routes, at least, we predict an early pace track.
2. THE second example race (same Day) is a sprint. Once again the horse is easily in front at the Second Call. Early Pace is confirmed.
3. In the Third example, another sprint, the winner is TWO lengths and a head behind the leader. (4-3 in Result charts means 4th 3 lengths ahead of the horse running 5th). In the stretch Lava Blast is only One Full length back. Within TWO, or even $2\frac{3}{4}$, at the second call is considered Early Pace. Therefore the track Early Speed Bias is holding up. Take a look at the PLACE horse, paying \$17.20. It demonstrated even better Early Pace characteristics than the Winner.

The fifth race is a mile on the turf. Turf races usually favor Sustained Pace. However, the Winner hangs on to its second call lead and never looks back. Look at the place horse, however. It started last and closed. Typical of a winning TURF effort. It was the sustained pace horse and it went off at \$10.80 to One. It's a good example race but the mutuels would say, PASS.

4. No surprise in the 8th race and final example. Two lengths behind at the second call. Well within the parameters of Early Pace bias. Wins by 1/2.

You have seen an excellent example of Early Speed Bias as reflected through the Results Charts. Had the winners been 3 to 5 lengths back at the second call, the track would be called Average, showing a 1.2 Bias. If the winners were mostly MORE than 5 lengths back at the second call, the track was running Sustained, or 1.1.

ALWAYS Consult the previous day's charts before you bet. Play the first race with caution but in accordance with the previous day's Bias. If the FIRST race of the day confirms the bias, follow the flow. If not, you will be way ahead of the crowd in spotting a change. Don't be hasty, however, ALWAYS chart the running pattern of the PLACE horse as a double-check. This is especially valid in SPRINTS. The 20,000 + race statistics on PLACE horses are indistinguishable from Winners, (except in finish position and average mutuel.) A sudden change from an Early to Sustained pace winner could reflect some trouble encountered by the winner in the early going. If you're at the track watch the re-run. Do not be too hasty in predicting a bias change. They come mostly after a change in weather, or at sea-side tracks, changes in Tide. If you're not certain the bias has shifted but wish to capitalize IF it has, play the best EARLY and BEST SUSTAINED as your two choices.

EXAMPLES OF RESULTS CHARTS

6001 FIRST RACE, 1 1/16 miles, three years old & up, claiming price \$12,500-10,500, Purse \$8,500, to winner \$4,875, second \$1,700, third \$1,275, fourth \$638, fifth \$212.

5622 Bright Isle	Mesa	115	11	8	2-2	1-1	1-4	1-3	1-2	3.70
5623 Scarns	Black	117	7	8	8-2	1-1	2-3	2-3	2-3	13.20
5624 Soy Key	Delgadillo	115	8	3	3-2	3-2	4-2	3-2	3-2	12.10
5625 Princes To Diddle	Vinal	116	8	8	8-1	6-2	6-2	4-1	4-1	3.40
5626 Swamp Lark	Ortega	113	10	7	9-2	8-4	7-4	5-3	5-3	13.00
5627 Fabulous Reason	Medin	115	9	11	1-3	10-1	8-4	9-1	6-2	13.90
5628 Boon More	Salazar	115	2	9	8-4	7-2	8-3	8-1	7-1	3.50
5629 Decurville Drive	Mesa	112	3	1	7-1	9-1	10-1	7-4	8-1	14.10
5630 Quanta Rags	Kawley	116	1	2	4-1	4-1	5-1	6-2	9-1	7.70
5631 The Big T.	Castaneda	115	6	10	12	12	11-1	11-12	10-6	15.10
5632 Hishaper	Toro	115	4	4	1-1	2-3	3-4	10-1	11-18	19.80
5633 Wayne Sam	Tajera	119	12	12	10-4	11-1	12	12	12	96.20

Time — .22 4/5, .46 1/5, 1.12, 1.37 3/5, 1.44 4/5 Clear & Fast.

BRIGHT ISLE	8.40	5.20	3.80
SCARNS		11.20	7.20
SOY KEY			15.40

6010 FIRST RACE, 8 furlongs, Fillies and Mares, three year olds and up, claiming price \$16,000-\$14,000, Purse \$8,500, to winner \$4,875, second \$1,700, third \$1,275, fourth \$638, fifth \$212.

4307 Ramabluff	Delgadillo	116	1	3	1-1	1-1	1-3	1-4	4.30
5471 Hi Rise Mandy	Mesa	116	8	1	3-1	4-1	5-4	2-2	2.10
5472 Ramblin' Luv	Black	116	2	8	8-4	5-3	4-1	3-1	18.40
5473 Fabulous Mary	Fernandez	116	7	2	2-1	2-2	2-2	4-1	3.10
5474 Agitate	Toro	116	5	4	4-2	3-2	3-4	5-4	4.50
5475 Velvet Blitz	Castaneda	116	8	8	8-1	6-3	8-1	8-1	8.80
5476 Diddle Fly	Ortega	116	3	9	9	9	7-1	7-1	41.40
5477 Who Love Amy	Tajera	116	6	7	7-6	7-1	8-1	8-1	28.70
5478 Glenda Gail	Pearce	116	4	5	8-4	8-1	8	8	15/80

Time — .23, .46 1/5, .59 1/5, 1.13 Clear & Fast. Start good. Won driving.

RAMABLUFF	10.80	8.40	3.80
HI RISE MANDY		3.80	3.20
RAMBLIN' LUV			8.00

6012 THIRD RACE, 6 furlongs, Three year olds, Claiming price \$32,000-\$26,000, Purse \$11,000, To winner \$6,050 second \$2,200, third \$1,550, fourth \$825, fifth \$275.

5257 Love Blast	McCarron	116	8	1	4-2	4-3	4-2	1-1	2.30
5551 Rubing Position	Yalenzuela	115	7	2	3-1	3-1	2-1	2-1	21.90
5552 Playing To Win	Estroza	113	3	5	2-1	1-1	1-4	3-1	9.50
5553 True Promise	Toro	116	2	7	6-1	6-2	5-1	4-2	8.60
5554 Ice E	Ortega	116	5	3	7-6	7-6	6-2	5-1	5.80
5555 Harbait	Kawley	116	4	8	8	8	7-1	8-4	6.70
5556 Record	Mesa	116	1	4	1-4	2-1	3-4	7-2	4.70
5557 Str Street	Pacey	118	5	6	6-2	5-1	8	8	4.20

Time — .22 1/5, .46 2/5, .58 4/5, 1.12 1/5 Fast. Start good, won driving.

LOVE BLAST	8.80	4.40	3.40
RUBING POSITION		17.20	8.40
PLAYING TO WIN			7.80

6014 FIFTH RACE, One mile on turf, Allowance, Three year old fillies, Purse \$20,000, to winner \$11,000, second \$4,000, third \$3,000, fourth \$1,500, fifth \$500.

5612 Heartlight No. One	Pacey	120	8	8	2-1	1-2	1-4	1-6	3.30
5654 Golden Grand	Shoemaker	120	4	4	9-4	6-2	6-2	5-3	10.80
5612 Sweet Diane	Shille	120	3	3	4-1	3-1	3-2	2-4	3.80
5618 Precious Photo	Lipham	120	8	7	7	7	7	7	4-1
5610 Miss Show Boat	Mesa	115	7	5	5-2	5-3	4-2	4-4	51.70
5382 Isabella O'Este	Kawley	115	2	2	2-1	4-1	5-4	6-4	6-1
5382 I'm Prestigious	Warren	110	1	1	1-2	1-4	2-1	3-2	7

Time — .23 3/5, .47 3/5, 1.11 4/5, 1.38 3/5 Clear & Firm. Start good, won driving.

HEARTLIGHT NO. ONE	2.80	2.40	2.10
GOLDEN GRAND		4.80	2.40
SWEET DIANE			2.20

6017 EIGHTH RACE, One mile, Allowance, Three year olds and up, Purse \$28,000, to winner \$15,400, second \$5,600, third \$4,200, fourth \$2,100, fifth \$700.

EGG TOSS	McCarron	114	1	3	3-2	3-4	2-2	2-6	1-1	2.20
LOST CREEK	Forstner	108	7	2	1-1	1-3	1-2	1-1	2-3	17.10
PURE HARBANO	Toro	115	4	5	6-6	6-6	5-2	5-4	5-4	30.80
SUMMER CREEK	Castaneda	115	6	4	4-1	4-4	4-1	3-4	4-1	3.10
TEXAS COMMERCE	Pacey	117	3	1	2-2	2-3	3-4	4-4	5-4	3.90
KANSAS HILL	Delahoussaye	116	2	7	7	7	7	6-1	6-1	6.40
QUANTUM LEAP	Shoemaker	114	5	6	5-4	5-1	4-3	7	7	3.50

Time — .22 3/5, .46 3/5, 1.10 3/5, 1.37 1/5 Fast. Start good, won driving.

EGG TOSS	8.40	4.20	3.40
LOST CREEK		11.20	8.20
PURE HARBANO			5.00

From: Tom

To: Howard -

I've included the current model as well as the worksheet I use to track the bias.

MARCH 8-24

* 42 sprints

- 35 (83%) top 3 & ties Average Pace/FACTOR W*
- 33 (73%) top 3 & ties Early Pace

MODEL-Play must be in top 3 W, and top 3 early. Most winners have a 1 or 2 ranking in one of the factors.

(requiring a 1-2 in both categories weakens the model)

* 30 routes

- 25 (83%) top 3 & ties -FACTOR W
- 24 (80%) top 3 & ties sustained pace

MODEL- A 1-3 ranking -'W'. & 1-3 sustained with a 1-2 in one or the other.

notes-

- keep routes/sprints & dirt/turf worksheets separate. Patterns will emerge more readily.
- seg 1 is first call
- "late" is sustained pace
- "early" is early pace (second call)
- average is $\text{early} + \text{late} / 2$ (FACTOR W)*

My ARTICLE To Follow.

Tom

* Tom uses a PC-4. He has programmed Factor W as Ave. Pace.

During recent weeks, a user of the Sartin Methodology would have found the following information to be extremely valuable:

At Santa Anita from March 8th through the 24th, 83% of the sprint races were won by the three top rated "Average Pace" horses. During the same period, 80% of the dirt routes were won by the top three "Average Pace" combined with the top three "Sustained Pace" figures. And, that separating the sprint contenders was as simple as ranking the "Early Pace" category. A player aware of these biases is certainly paying close attention to his/her racetrack. That same player was probably also aware that during a week-long period in February the best third segment (last fraction) alone was winning dirt races at all distances. Such an awareness provided the edge we're all hoping to gain. Double digit payoffs were the norm and a Sartin player had only to consult the last fraction of his readout. Pretty simple stuff if you maintain an organized approach towards determining track bias.

Granted, most of us are aware of the general or long range tendencies of our racetrack. We know what factors will produce enough winners to maintain an adequate win percentage and its resulting ROI. Combinations of average and early pace will generally sustain the 63% average Dr. Sartin insists his people achieve. But, the \$63.00

question is "how do I get from 63% to 70% and beyond?"

The answer lies in stressing the factors and combinations of factors that are winning now. Determining those factors entails close scrutiny of current track bias and, to that end, I employ the enclosed worksheet.

Dist.	SEG.#1	Early	Late	Factor W	REMARKS
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

RACE TYPE _____
(S) / (R)

Its use provides several benefits to the handicapping process. By recording data on winning horses I can move beyond an empirical analysis of bias. Most of us can recount the day's wins and losses and know generally if speed "held" or closers dominated. For us, that's just too inexact. After going to all the effort of breaking pace components into hundredths of seconds, why not continue that precision into the analysis of track bias? Let me describe the process.

At the end of each racing day* I record the winner's rankings in the following categories: Segment 1 (first call), Early pace, Late pace (sustained) and Average pace. (W) Perhaps surprisingly, after only a few races, patterns literally jump off the page. As one's and two's become prevalent in specific categories the next logical step is to build a * or from next morning's newspaper.

"model" based on those trends. By way of example let's use my current model for Santa Anita sprints

* 42 sprints handicapped Mar. 8-24

- 35 won (83%) by the top three rankings in Average Pace (31 in top two!)

- 33 (73%) won by the top three rankings in Early Pace. (26 in top two)

Based on that data the current sprint model is:

- Top three and ties in Average Pace as contenders, separated by the rankings in Early Pace.

A surprise from the raw data is that by requiring a one or two ranking in both categories significantly weakens the model. (I include this information for those who would have used the model without the data upon which it was based.)

The current route model also stresses Average Pace but with Sustained Pace as the separator.

The "life" of a model is dependent upon the weather and the plans of the track superintendent and, since neither is really predictable, changes occur randomly. But since we're looking for changes in the bias it's a simple matter to vary betting choices accordingly. It's extra work, but the edge is significant and, after all, isn't that what we're after?

* Current Procedure

- Determine model fit
- Eliminate poor % races
- Label Question marks
- Recency!
- Careful Pace line selection

* current models

1¹/₁₆ Avg.* & Late (slight bias)

1 mi. Avg.* & No bias

1¹/₈ Avg.* & Late (strong bias)

(a) 6¹/₂ top Avg.* & Late (strong bias)

6-6¹/₂ Sprints Avg.* & Early

- closers win only if speed jam up front.
- top two Avg.* dominate

* Top 3 Avg.* Win 84%

Top 2 Avg.* Win 76%

Sprints And Routes !

* ON TOM'S READ-OUTS AVE. IS
FACTOR W

MARCH 8 thru April 11

* 64 Sprints handicapped

- top 3 Avg. Won 54 or 84%
- top 2 Avg. Won 48 or 75%
- top 3 Early Won 48 or 75%
- 6½ turf Avg. + Sustained Wins nearly every time

* 50 ROUTES

- top 3 Avg. Won 42 or 84%
- top 2 Avg. Won 38 or 76%
- Bias is based on distance
 - 1 mi. No bias
 - 1 1/16 slight late bias
 - 1 1/8 strong late bias

SPRINTS					
DIST	SEG 1	EARLY	LATE	FACTOR W AVG.	REMARKS
MARCH 8 TH					
6f	1	1	5	1	
6f	2	3	1	1	
6f	5	5	2	5	BEST 3 RD SEG.
MARCH 9 TH					
6f	1	1	2	2	
6f	4	5	4	5	LAY OFF
6f	3	1 TIE	4	1 TIE	
6f	1	1	4	2	
6f	1	2	7	3	
MARCH 10 TH					
6f	4	4	2	2	
6f	4	2 TIE	3	2	BEST LATE OF CONTESTERS
MARCH 11 TH					
6f	4	4	5	4	
6f	1 TIE	1 TIE	7	3	
6f	2	3	?	3	
6f	1	1	4 ^{UP} 4 ^{DOWN}	1	
6f	1	1	4 ^{UP} 4 ^{DOWN}	1	
6f	4	3	1	4 (CLOSE)	DOWNHILL SEG
MARCH 15 TH					
6f	2	2	2	1 TIE	
6f	3	4	2	2 TIE	3 RD BEST X
6f	1	1	1	1	
6f	4	2 TIE	1	2	LAY OFF
MARCH 17 TH					
6f	3	4	1	1 TIE	
6f	3	3 TIE	2 TIE	2 TIE	BEST MODEL #23.50
6f	3	3 TIE	1	1	BIB 340 SEG.

WON AFTER A
LONG LAYOFF

LATE

ABOUT 6 1/2 f
TUFF COURSE
WITH A DOWNHILL
EARLY

Factor W

SPRINTS					
DIST.	SEG 1	EARLY	LATE	AVG	REMARKS
		MARCH 18 TH			
6F	1	1	4	1	BIG EARLY EDGE.
		MARCH 21 ST			
6 1/2	1	1	6	1	13.50
5 1/2	1	1	4	1	
6F	2	2	1	1	
6 1/2	7	6	2	5	
6 1/2	2	4	5	2	
5 1/2	4	4 (KING)	1	1 TIE	
		MARCH 22 ND			
6 1/2	8	8	2 TIE	7	32.00
6 1/2	6	6	1 TIE	4	
6 1/2	2	1	3	2	7-1 (NO) 65
6F	1	1	3	1	
6F	1	1	5	1	23.80
		MARCH 23 RD			
6 1/2	1	1	X	1	
6F	4	1	X	2 TIE	18.00 .05 LAST 1 AVG.
7F	3	2	2	4	
6F	3	3	2	3	
6F	1	1	X	1	
		MARCH 24 TH			
6F	4	2 TIE	4	2 TIE	21.00
6F	3	1	3	1 TIE	3-1
6F	1	1	1	1	(X)
		MARCH 28 TH			
6F	3	3	2	1 TIE	(X)
6F	—	—	—	—	BIG ADV X
6F	1	1	X	1	
6F	2	2	1	1	(X)

BIG IN
AVE. POSE
VALUE

SPRINTS

FACTOR
W

DIST	SEGI	EARLY	LATE	AVG.	REMARKS
		MARCH 29			
74	1	1	1	1	2-5 5 th (X) ←
		MARCH 30			
6	1	2	1 TIE	2	BEST (X)
6	2	14	2	2	BEST (X)
6 1/2	3	3 TIE	4	3 TIE	2 nd BEST (X) 3 rd EX W. BEST (X)
		MARCH 31			
6	2	2	2	4 th	BEST (X)
6 1/2	1	2	3 TIE	1	ST. AND 1st TIE BEST (X)
6	2	4	1	2	BEST (X)
6	1	2	2	1 st	3-5
		APRIL 4			
6	2	2 TIE	3	3 TIE	BEST (X)
6	3	2 TIE	4	3 TIE	2 nd (X)
7	1	1	3	1	BEST (X)
6	3	4 th close	X	3 TIE	only accuracy
		APRIL 5			
6	1	1	4	2	
6	5	5	5	6	CLASS EDGE
		APRIL 7			
6	1	1	X	2	AC WIND-WALK
6	2	1	4	1	
6	4	4 th close	1	3	BEST 3 rd SEC. BEST (X)
6 1/2	7	5	1	1 TIE	SEC 3 SEC BEST (X)
		APRIL 11			
6 1/2	4	4	2	1 TIE	WIND COURSE

X IS FACTOR X
The Ave. of The 1st
AND 2nd fraction

RACE TYPE ROUTE

DIST.	SEG 1	EARLY	LATE	AVG	REMARKS
		MARCH 21			
1 1/16	1	1	4	2	816 2 CAN WAGE
1 1/16	6	6	1	2	
		MARCH 22			
1 mi.	7	4 TIE	1 !	1 TIE	171.00 EX TO TIE AVG.
1 1/8	X	X	X	X	80.00 CLASS APV EDGE
		MARCH 23			
1 1/4	2	2	1 TIE	2	#1 OF ROUTES
1 1/4	2	2	1	1	
1 1/16	4	4	2 TIE	3	#1 LATE DIA NOT A.P. AVG.
		MARCH 24			
1 1/16	X	X	X	X	63.00 LAY OFF
1 1/8	2	2	4 TIE	2	
1 mi.	3	1	3 TIE	1	USING 2 SPR.
		MARCH 29			
1 mi.	4	5	2	3	18.00 BEST 3RD SEG.
1 1/16	3	2	3	2	
1 1/16	4	5	1	2 TIE	BEST L.F.
1 1/16	3	2	1 TIE	1	NO LOSS
1 1/16	2	1	X	X	CLASS EDGE
		MARCH 30			
1 1/16	1	1	1	1	\$17.00
1 mi.	4	4	1	2	
1 mi.	1	1	1 TIE	1	LAST 1/3 TO COMBINATION
		MARCH 31			
1 1/16	1	2	3 TIE	1	STR. OUT. 13.00
1 1/16	3	2 TIE	3 TIE	2 TIE	10.00 APV EDGE
1 1/16	1	1	2	1	

2ND CALL

80%+ CLASS EDGE

DID NOT FIT

PL 63.00 BACK AFTER LONG LAY OFF

SPRINT TO ROUTE

BEST FINAL FRACTION

BEST CLOSE

CLASS EDGE

17.00 MUTUEL

13.00 MUTUEL SPRINT TO ROUTE

DIST	SEGI	ROUTES		FACTOR W	REMARKS
		EARLY	LATE		
MARCH 8 TH					
1 1/16	1	1	POOR	1	LONE S/D !
7 1/16	4	2	1	1	
MARCH 9 TH					
1 1/16	1	3	3	3	
MARCH 10 TH					
1 1/16	3	3	2	2 TIE	RAID 2 ND TO 3 RD HORSE
1 1/16	5	2	1	1	
1 1/16	6	6	1	1	OVERWHELMING AVG. 3 RD LATE
1 1/16	3	2	2	2	
MARCH 11 TH					
1 1/16	4	3	1	1	
1 1/16	4	5 (OUT CLOSE)	1	1	#20 ⁰⁰ WIN.
MARCH 14 TH					
1 1/16	6	6	2	2	#35 ⁰⁰
1 1/16	2	2	5	5	GOOD TURN + BACK
1 1/16	2	1	TIE 2 ND	TIE 1 ST	#15 ⁰⁰
MARCH 15 TH					
1 1/8	4	3	1	1	#4.80
1 1/16	2	2	2	1	#14.00
1 1/16	6	6 CLOSE TO 3	1	1	DOMINANT 3 RD 2 ND + LATE !
MARCH 17 TH					
1 1/8	7	7	1 8 ⁰⁰ TIE	5	
1 1/8	2	2	2	1	
1 1/16	8	6	2	3	BEST LATE/AVG COMBO.
MARCH 18 TH					
1 1/16	3	5	5	5	
1 1/8	1	1	3	1	
1 1/16	3	3 TIE	3	1 TIE	
1 1/16	3	1	2	1 TIE	

LONE EARLY
SPEED

OVERWHELMING
FACTOR W

20⁰⁰ MUTUEL

LATE +
W

BEST LATE
+ W

LONE EARLY
SPEED

OVERWHELMING
FACTOR W

20⁰⁰ MUTUEL

LATE +
W

BEST LATE
+ W

ROUTES

March April 4 W

	SEG 1	EARLY	LATE	AVG.	REMARKS
1 1/4	6	5	2	1	#17.80 MIG. CO/PM
1 mi	?	?	?	?	SPRINTERS DOMINATED
APRIL 5					
1 1/4	1	1	2	1	
APRIL 6					
1 1/8	4	3	2	1	10 ⁰⁰
APRIL 7					
1 mi.	3	2	3	1	
1 1/4	5	5	2	6	CLOSEST RACE & RECENT POOR
1 1/8	1	1	2	1 Tie	
APRIL 11					
1 1/4	5	3	3	2	Early Pace race.
1 mi	1	1	X	1	25 vs 2nd best early.

To embellish on Tom's words would be to complicate what he has made so simple. I have watched and listened to him teach new clients his techniques and they have comprehended with a minimum of confusion and gone on to win at proficiency levels that exceeded their finest expectations.

* A note on Tom's definition of factor W. He uses a PC-4, hand held mini-computer: The more complex factor W formula does not fit in the memory. $EP \times SP \div 55 = FW$ produces the same rankings as $EP+SP \div 2=AP$. The W formula merely gives contenders a WIDER separation for easier recognition and helps to break ties-or near ties.

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W

[illegible]

#of Races	Type of Race	Seq.#1	Early	Late	Factor W

79.

A PREVIEW OF THINGS TO COME

Jim Bauman and Dean Daley, of PIRCO, are constantly at work transforming my algorithms into working read-outs and precise graphics. Archie West and Pircos, Bob Lee are both working their computers overtime in the Mid-West for the benefit of us all. Our first programmer, seems so long ago, Robert Andrews, is doing Christian Missionary work in a third world country yet to be named.

COMPUTER PROGRAMS

Hand Held Calculator Formulas

Available now is the formula and computer program for determining WIN PAR ENERGIES, TOTAL, EARLY and LATE. To use the formula/computer programs to ascertain PAR W, or any other viable factor we merely enter the Winning Par f/p/s velocity of any specific factor, and divide it INTO the f/p/s velocity time registered by the horse being handicapped.

EXAMPLE: Win Par Factor W=59.08 — Horse's Factor W = 58.01. $58.01/59.08 = 98.18$ — $100 - 98.18 = 1.82$.

So the horse in question is -1.82. Unlike golf, a minus par is a negative sign. We're looking for Horses who are right at or OVER PAR. That's the way I play golf. High score is best. And I register some mighty high scores.

Some of you already have PACE SCAN.

This program has proven especially effective in picking Exactas, Quinells, and Trifectas: any exotic where you can baseball three horses. It has an uncanny sensor for extracting the three most likely "in-the-money" contenders.

PACE SCAN

```
*****
PACE OF HORSE 53.571
*****
COMPOSITE RATING 53.407
EARLY PACE RATING 99.167
SUSTAINED PACE RATING 100.227
FACTOR 'W' RATING 73.31
*****
EP/SP % RATIO 50.103
*****
PACE SAN - EARLY 73.2391429
*****
PACE SCAN-SUSTAINED 73.3905715
*****
```

Some time ago we began experimenting with DECELERATION as a complement to our ACCELERATION figures. Out of this came a DC/V formula (Deceleration/Velocity) With this program we can visualize which early speed horses will not last and which will; Sustained pace horses that have sufficient early pace to make their closing effective. Acceleration is only half the battle. Weighing it against a horse's deceleration pattern affords us an Extra edge.

DATE 5/3/84

ROUTE
RACE NUMBER 9

HORSE # 1

CLASS ADJUSTMENT .15
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

DC/V

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
TOTAL ACCELERATION 54
2ND CALL VELOCITY 53.95
TRUE SPEED 54.05
MAX. ACCELERATION 56.93
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
DECELERATION-EARLY 51.13
DECELERATION-LATE 55.05
TOTAL DECELERATION 53.55
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
R A W D/V RATING 53.62
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADJUSTED D/V RATING 53.77

~~The ultimate program~~ will be ENERGY EXERTION into which par WIN ENERGIES are input. Then the program evaluates and prints out par relationships. This will be available sometime next year.

ENERGY EXERTION

ENERGY EXERTION-Experimental

```
ENERGY EXERTION
*****
2ND CALL(EP) 53.79
SUSTAINED PACE 54.7
TRUE SPEED 54.28
RAW FACTOR W 53.5 CLASS
ADJUSTED W 53.84 .34
*****
EX RAW 54.7 PAR DIF
EX ADJ 55.04 55.00 - 0.30
*****
% EX EARLY 49.17 52.00 - 2.83
*****
% EX LATE 50.83 48.00 + 2.83
*****
```

Of Immediate importance is Phase IV Handicapping, to which this opus is intended as an introduction. The Basic Program in Phase IV will be the Expanded Pace of the Race/Pace of the Horse. No other program gives so graphic a picture of how to view a contender's chances against today's matchups.

No other program makes pace line selection such an easy task. All other programs depend on your selecting the proper pace-line. This program is an aid to finding the exact proper line. We have now adapted it as a superior handicapping tool as well. It gives you a Pace Rating, a Composite Rating and an Ultimate Factor W rating for both Early and Sustained Pace Models. It is the ideal companion to the BROHAMER MODEL. This read-out is the version without a Sustained Factor W. The improved formula is now being programmed.

PHASE IV HANDICAPPING

THE EMPIRE INSTITUTE
PRESENTS
PACE-FORM-CLASS
MEASUREMENT

FOR
PROFESSIONAL HANDICAPPING
WITH FACTOR 'W'

SPECIAL PROJECTS GROUP ACCESS ONLY

As programmed by Jim Bauman, this is the first thing on
your monitor after pressing RUN. The subsequent read-outs
represent our most viable handicapping aid.

PIRCO 20000 CLM. AQU.(M)

HORSE 1					
RACE 1	1	2	3	BASIC	TOT/4

RACE	57.14	49.25	53.57	54.25	54.6
------	-------	-------	-------	-------	------

HORSE	56.69	49.55	53.60	53.95	54.55
-------	-------	-------	-------	-------	-------

PACE RATING	99.59	DIFFERENCE	.25
-------------	-------	------------	-----

COMP RATING:	5432.6345
FACTOR W:	77.05

BAUMAN 20000 CLM. AQU.(M)

HORSE 2					
RACE 1	1	2	3	BASIC	TOT/4

RACE	57.39	49.25	52.88	54.40	54.77
------	-------	-------	-------	-------	-------

HORSE	56.78	49.55	53.19	53.94	54.46
-------	-------	-------	-------	-------	-------

PACE RATING	99.48	DIFFERENCE	.31
-------------	-------	------------	-----

COMP RATING:	5417.6808
FACTOR W:	76.95

PACE COMPARISON GRAPH

RACE 1 20000 CLM. AQU.(M)

77.05	PIRCO
76.95	BAUMAN

JOHN NICK'S FIRST NIGHT USING
THE PAR ENERGY PROGRAM AT Jnd
In Louisiana

Since John was unfamiliar with the
Program he played exactas only.
Exactas played 5. Exactas Won: 3
Average Exacta: \$204

AVERAGE WIN MUTUEL \$ 17.00 *
PLACE " \$ 11.75

*Based on a \$3.00 Minimum bet

REGAL MASCOT
END CALL (EP) 53.55
SUSTAINED PACE 53.55
RAW TRUE SPEED 53.55
RAW FACTOR U. 53.55
CLASS ADJUSTMENT 53.55
ADJUSTED FACTOR U. 53.55
EX RAW 51.25
EX ADJ 51.43
PAR 53.22
DIFF 1.97
1/2 EX EARLY 52.53
1/2 EX LATE 47.47
47.55 .08

MISJUDGE ME 2nd (PL) 2nd 05.014 10.50

2ND CALL (EP) 51.93
SUSTAINED PACE 50.42
RAW TRUE SPEED 51.36
RAW FACTOR U. 47.65
CLASS ADJUSTMENT 0.5
ADJUSTED FACTOR U. 48.15

EX RAW 50.42
EX ADJ 50.67
PAR 53.22
DIFF 2.8

1/2 EX EARLY 51.55
1/2 EX LATE 48.45
47.55 -0.9

SCOTTISH BARRAGE

2ND CALL (EP) 53.55
SUSTAINED PACE 51.16
RAW TRUE SPEED 54.77
RAW FACTOR U. 50.56
CLASS ADJUSTMENT 0.85
ADJUSTED FACTOR U. 60.41

EX RAW 61.16
EX ADJ 61.53
PAR 55.59
DIFF -5.57

1/2 EX EARLY 43.79
1/2 EX LATE 56.21
49.47 -6.74

JOHN NICK'S READOUTS
APRIL 20, 198 JEFFERSON DAVIS

Of Immediate importance is Phase IV Handicapping, to which this opus is intended as an introduction. The Basic Program in Phase IV will be the Expanded Pace of the Race/Pace of the Horse. No other program gives so graphic a picture of how to view a contender's chances against today's match-ups. No other program makes pace line selections such an easy task. All other programs depend on your selecting the proper pace-line. This program is an aid in finding the exact proper picture. We have now adapted this as a superior handicapping tool. I give you a superior, a Composite Rating and Eliminate False Favorites, a Early and Late Pace Models. I give you a deal companion to the BROTHAM MODEL. This read-out formula is now without question the most accurate formula is now being programmed.

~~PARTNER PULL IN~~

2ND CALL (EP).....	52.18
SUSTAINED PAGE.....	60.72
RAW TRUE SPEED.....	51.23
RAW FACTOR U.....	48.12
CLASS ADJUSTMENT.....	0.51
ADJUSTED FACTOR U.....	48.63

EX	RAW	50.72	PAR	DIFF
EX	ADJ	50.97	51.34	0.62

EX	EARLY	51.44	51.98	0.54
----	-------	-------	-------	------

EX RATE 48.50 48.02 -0.54

QUICK METHOD PACE CHART
(Feet - Per - Second)

$\frac{0}{1}$ (1/4 Mi)	$\frac{1}{2}$ (1/2 Mi)	$\frac{3}{4}$ (3/4 Mi)	$\frac{5}{8}$ Fur. (3/16 Mi)	$6\frac{1}{2}$ F-1 1/16 M (5/16 Mi)	7 F-1 1/8 M (3/8 Mi)
21 - 62.86 1 - 62.26 2 - 61.68 3 - 61.11 4 - 60.55	43 - 61.39 1 - 61.11 2 - 60.82 3 - 60.55 4 - 60.27	1:08 - 58.23 1 - 58.06 2 - 57.89 3 - 57.72 4 - 57.55	16 - 61.87 1 - 61.11 2 - 60.36 3 - 59.63 4 - 58.92	28 - 58.92 1 - 58.51 2 - 58.09 3 - 57.69 4 - 57.29	35 - 56.57 1 - 56.25 2 - 55.93 3 - 55.61 4 - 55.30
22 - 60.00 1 - 59.45 2 - 58.92 3 - 58.40 4 - 57.89	44 - 60.00 1 - 59.72 2 - 59.45 3 - 59.19 4 - 58.92	1:09 - 57.39 1 - 57.22 2 - 57.06 3 - 56.89 4 - 56.73	17 - 58.23 1 - 57.55 2 - 56.89 3 - 56.25 4 - 55.61	29 - 56.89 1 - 56.50 2 - 56.12 3 - 56.74 4 - 55.37	36 - 55.00 1 - 54.69 2 - 54.39 3 - 54.09 4 - 53.80
23 - 57.39 1 - 56.89 2 - 56.41 3 - 55.93 4 - 55.46	45 - 58.66 1 - 58.40 2 - 58.14 3 - 57.89 4 - 57.64	1:10 - 56.57 1 - 56.41 2 - 56.25 3 - 56.09 4 - 55.93	18 - 55.00 1 - 54.39 2 - 53.80 3 - 53.22 4 - 52.65	30 - 55.00 1 - 54.63 2 - 54.27 3 - 53.92 4 - 53.57	37 - 53.51 1 - 53.22 2 - 52.94 3 - 52.65 4 - 52.38
24 - 55.00 1 - 54.54 2 - 54.09 3 - 53.65 4 - 53.22	46 - 57.39 1 - 57.14 2 - 56.89 3 - 56.65 4 - 56.41	1:11 - 55.77 1 - 55.61 2 - 55.46 3 - 55.30 4 - 55.15	19 - 52.10 1 - 51.56 2 - 51.03 3 - 50.51 4 - 50.00	31 - 53.22 1 - 52.88 2 - 52.54 3 - 52.21 4 - 51.88	38 - 52.10 1 - 51.83 2 - 51.56 3 - 51.29 4 - 51.03
25 - 52.80 1 - 52.38 2 - 51.96 3 - 51.56 4 - 51.16	47 - 56.17 1 - 55.93 2 - 55.69 3 - 55.46 4 - 55.23	1:12 - 55.00 1 - 54.84 2 - 54.69 3 - 54.54 4 - 54.41	20 - 49.51 1 - 49.00 2 - 48.52 3 - 48.05 4 - 47.59	32 - 51.56 1 - 51.24 2 - 50.92 3 - 50.61 4 - 50.30	39 - 50.76 1 - 50.51 2 - 50.25 3 - 50.00 4 - 49.74
26 - 50.76 1 - 50.38 2 - 50.00 3 - 49.62 4 - 49.25	48 - 55.00 1 - 54.77 2 - 54.54 3 - 54.32 4 - 54.09	1:13 - 54.24 1 - 54.09 2 - 53.94 3 - 53.80 4 - 53.65	21 - 47.14 1 - 46.69 2 - 46.26 3 - 45.83 4 - 45.41	33 - 50.00 1 - 49.69 2 - 49.41 3 - 49.10 4 - 48.81	40 - 49.50 1 - 49.25 2 - 49.00 3 - 48.76 4 - 48.52
27 - 48.88 1 - 48.52 2 - 48.17 3 - 47.82 4 - 47.48	49 - 53.87 1 - 53.65 2 - 53.44 3 - 53.22 4 - 53.01	1:14 - 53.51 1 - 53.36 2 - 53.22 3 - 53.08 4 - 52.94	22 - 45.00	34 - 48.52 1 - 48.24 2 - 47.94 3 - 47.68 4 - 47.41	
28 - 47.14	50 - 52.80 1 - 52.56 2 - 52.36	1:15 - 52.80		35 - 47.14 1 - 46.87 2 - 46.61 3 - 46.34 4 - 46.08	

• $7\frac{1}{2}$ Fur. & 1 $\frac{3}{16}$ Mi. - 2310 ÷ by Closing Fraction . Use 10ths

• 1 Mi. 70 Yards - 1530 ÷ by Closing Fraction . Use 10ths

TRACK TO TRACK VARIANT & CLASS
ADJUSTMENTS REDUCED BY TRACK CLASS

When a horse has been regularly running at a track having a LOWER class level, reduce its class in accordance with the percentage table below. Do NOT penalize a horse that - for instance - has been running most of his races at AQU or Belmont but goes to KEENALAND for a one or two time appearance. In essence this is still a Class I track animal. Similarly, when a HORSE FROM A LOWER LEVEL TRACK earns a Track Surface Variant that is higher than the one for the BETTER CLASS track, reduce its Variant by the percentage indicated below.

<u>-0%-</u>	<u>-20%-</u>	<u>-40%-</u>	<u>-60%-</u>	<u>-70%-</u>	<u>-80%-</u>	<u>-90%-</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
AQU	AP	AKS	ATL		A.C. CLS	
BEL	AQU (I)	BM	BMF		CT	FER
DMR	GP	CD	BOW	ASD	DED	IMP
HOL	HIA	FG	CRC	BEU	EIP	MF
SAR	KEE	GG	DEL	BML	GBF	
S.A.	MED	HAW	FNO	CEN	JND	POC
	OP	LRL	GRD	DET	JAU	PRE
		MTH	HP	EP	LAM	
		PIM	KEY	EVD	LBG	WAT
		POM	LA	FE	MD	YM
		SPT	LAD	FL	NMP	BOI
			LGA	FON	NP	
			PLN	FP	PLA	
			RKM	LAT	RD	
			SR	LNN	REG	
			STP	PEN	RIL	
			SUF	PM	RUI	
			TDN	SAC	SAL	
			WO	SOL	SAN	
				STK	SFE	
				TAM	SUN	
				TIM		
				TUP		

READING THE RESULTS CHARTS

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

To make effective use of WIN PAR ENERGY it is necessary to make daily use of the Results Charts compiled by the Daily Racing Form and reprinted in most daily newspapers. I was quite surprised recently to learn that many otherwise astute handicappers could not properly read the Charts.

YOU DO NOT read them as you do the PAST PERFORMANCE CHARTS. Beaten lengths are reproduced in just the OPPOSITE order.

EXAMPLE:

FIFTH RACE		6 FURLONGS. (1.07%) CLAIMING. Porse \$10,000. 4-year-olds and upward. Weight, 120 lbs. Non-winners of two races since March 1 allowed 3 lbs.; a race since then, 6 lbs. Claiming price \$12,500; if for \$11,000 allowed 2 lbs. (Maiden, starter and claiming races for \$10,000 or less not considered.)									
Golden Gate		APRIL 7, 1964									
Value of race \$10,000, value to winner \$5,500, second \$1,950, third \$1,400, fourth \$900, fifth \$250. Mutuel pool \$145,603. Exacta		Pool \$234,135.									
East Raced	Horse	Eql.A.Wt	PP	St	1/4	1/2	Str	Fin	Jockey	Cl'g Pr	Odds \$1
24Mar84 5GG4	Re Peter	4 114	5	6	X	52	4th	7	4th Warren R J Jr	12500	4.80
24Mar84 7GG9	Lark's Music	b 6 114	12	1	1	2nd	12	1	2nd Gomez R	12500	9.90
24Mar84 6GG9	Rapid Rogue	b 4 114	6	12	101	102	5th	31	Garcia K M	12500	21.10
24Mar84 3GG9	Limit To Romance	b 4 109	7	11	115	84	5th	41	Cuffari S J5	12500	18.20
24Mar84 7GG1	Walk Past	5 114	9	4	3	51	31	31	5th Lamance C	12500	3.60
24Mar84 3GG8	Tropic Lightning	b 4 114	1	3	2nd	6th	51	6th	Munoz E	12500	31.60
24Mar84 5GG2	Marturf	4 114	11	2	2	7th	72	4	7th Nicolo P	12500	2.70
24Mar84 10GG2	O Andrew	b 4 115	4	7	92	71	82	81	Judice J C	12500	14.10
24Mar84 5GG5	Sterling Silva	b 4 109	10	3	34	51	71	91	Lozoya D A5	12500	6.50
17Nov83 18M3	Le Flasher	4 114	8	5	10th	9th	103	101	Anderson J R	12500	26.10
24Mar84 9GG9	Makati	b 4 114	3	8	43	115	171	11th	Diaz A L	12500	16.50
13Apr83 7SA12	No Pity	b 5 115	2	10	12	12	12	12	Dillenbeck B D	12500	46.70
OFF AT 3:13. Start good. Won driving. Time, :22.45, :47, :1:10. Track fast.											
\$2 Mutuel Prices:		5-RE PETER 11.60 6.00 4.40									
		12-LARK'S MUSIC 11.80 8.20									
		6-RAPID ROGUE 18.60									
		\$5 EXACTA 5-12 PAID \$424.50.									

In using PAST PERFORMANCE CHARTS Re Peter, AT THE HALF, would be a head BEHIND the leader. Using the RESULTS CHARTS, Re Peter is 4th a head in Front of Sterling Silva, running Fifth. Since you will be figuring winners times there will be NO beaten lengths at the FINISH, only at the second CALL.

So, WORK BACKWARDS FROM THE HORSE THAT WAS 1st at the SECOND CALL. In this example it was Lark's Music, who was 2 lengths ahead of Marturf, who was 2 lengths ahead of Walk Past who was 1 1/2 lengths ahead of the eventual winner, Re Peter. Hence, at the 2nd CALL Re Peter was behind 5 1/2 lengths. Use the Quick Method Pace Chart for easy entry. The Pace at the 2nd call was: 45:1. On the Chart that's 58.40. Minus 5 1/2 lengths, is 46.1, plus half the difference between 46:1 and 46:2 = 57.01. The winners Final Time was 70:2 (1:10:2) Using tenths the Winners 2nd call time was 46:3, Final 70:4. 70.4 - 46.3 = 24.1. Which is 55.23 f/p/s. Hence, Re Peter's Energy times are 57.01 + 55.23. = 112.24

Our thanks to the Daily Racing Form (TM) for the use of their material so vital to the handicapper and to us in preparation of this Manual.

THE PIRCO HONOR-ROLL

CHARTER MEMBERS

<u>James Bauman</u>	<u>Darell Martin</u>
<u>San Jose, CA.</u>	<u>Beaumont, CA.</u>
<u>Ron Bauman</u>	<u>John Nick, MhA</u>
<u>Hemet CA.</u>	<u>New Orleans, LA.</u>
<u>Al Borgerding</u>	<u>Bob Purdy, Jr.</u>
<u>El Cajon, CA.</u>	<u>Fountain Valley, CA</u>
<u>Tom Brohamer</u>	<u>Richard Quigley</u>
<u>Long Beach, CA.</u>	<u>Tampa, FLA.</u>
<u>Frank Cunningham</u>	<u>Larry Olson</u>
<u>San Diego, CA.</u>	<u>San Diego, CA.</u>
<u>Dean Daley</u>	<u>B. Ivanovich Toporkoff</u>
<u>Norwalk, CA.</u>	<u>Pacifica, CA.</u>
<u>Bob Lee</u>	<u>Barry Burkan</u>
<u>Westville, IL.</u>	<u>New York - New Jersey</u>

Howard G Sartin
Banning, CA.

Several application are under consideration. Just approved was: James Bradshaw, Tulsa, OK.

Some PIRCO charter members not listed. They are full-time Handicappers in Las Vegas and Reno and wish to remain anonymous except for their contributions to our research and development. All listed above are pledged to help you at all times. Their only request is that you do not call them without prior arrangements. PLEASE write first.

Introduction To Factor Analysis

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