



## Certificarán el circuito para marcha

Representante de la Federación Internacional de Atletismo realizará hoy la medición oficial

Por **ALFREDO RAMIREZ**



El primer paso para la medición y certificación del circuito de la Macroplaza que servirá de escenario para el Campeonato Mundial de Caminata fue dado ayer con el trazado de los bloques que servirán para esto.

El agrimensor inglés Wayne Nicoll, junto con el regio Luciano Ramírez, realizaron ayer el trazado de estos bloques por la calle de Zuazua, los que servirán para realizar con mayor facilidad la medición.

Esta se realizará hoy a las 6:00 horas para evitar el tráfico vehicular que hay por estas céntricas calles y posteriormente el Instituto Estatal de la Juventud y el Deporte recibirá la certificación de manos del agrimensor de la Federación Internacional de Atletismo.

Con más de mil circuitos medidos en el tiempo que tiene de dedicarse a esta profesión, Nicoll dijo que su trabajo es un trabajo de precisión y que cada



Foto: El Norte Alfredo Ramirez

**Wayne Nicoll pedalea por la banqueta de Zuazua para calibrar la bicicleta.**

Wayne Nicoll traveled to Mexico as an IAAF Measurer to help lay out courses for the World Cup Racewalking Championships. See his report within.

## MEASUREMENT NEWS

#59 - May 1993

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### CHANGES

Elizabeth Longton, after an 8 year search, has accepted a position as Wellness Manager for a large aluminum company. Her new duties will keep her sufficiently busy that she has resigned as Tennessee Certifier. Bob Harrison will assume the Tennessee duties. Thanks to Elizabeth for the fine work she did as Tennessee certifier and as measurer of the Women's Olympic Trials Marathon course.

Woody Cornwell has been appointed National Road Race Course Certifier (final signatory) for the State of Georgia, by Wayne Nicoll. Congratulations, Woody.

### EVEN SHORTER CALIBRATION COURSES?

No! Tom McBrayer, with the concurrence of Bill Glauz, refused to certify a calibration course that was 921 feet long, and had a slight bend in it. Although there may be special circumstances that will allow the one-time use of a calibration course shorter than 300 meters, or non-straight-line, these must be considered as exceptional. 300 meters (984.25 feet) is the absolute minimum for a certifiable US calibration course, and no bends are permitted. Note that the international recommended minimum is 500 meters. Our former minimum length of 1/2 mile was not always easy to find on a road near the race course. 300 meters is almost always available, and there is no reason not to insist on this.

### HOW WE DID IN 1992

All of the 1992 courses should be in by now, so it's time to see how we did last year:

Most active certifier: Wayne Nicoll - 136 courses certified (149 last year)

Most active measurer: Glen Lafarlette - 62 courses measured (62 last year)

Most active state: California, with 103 courses certified (138 last year)

Measurers active in 1991: 314 (321 last year)

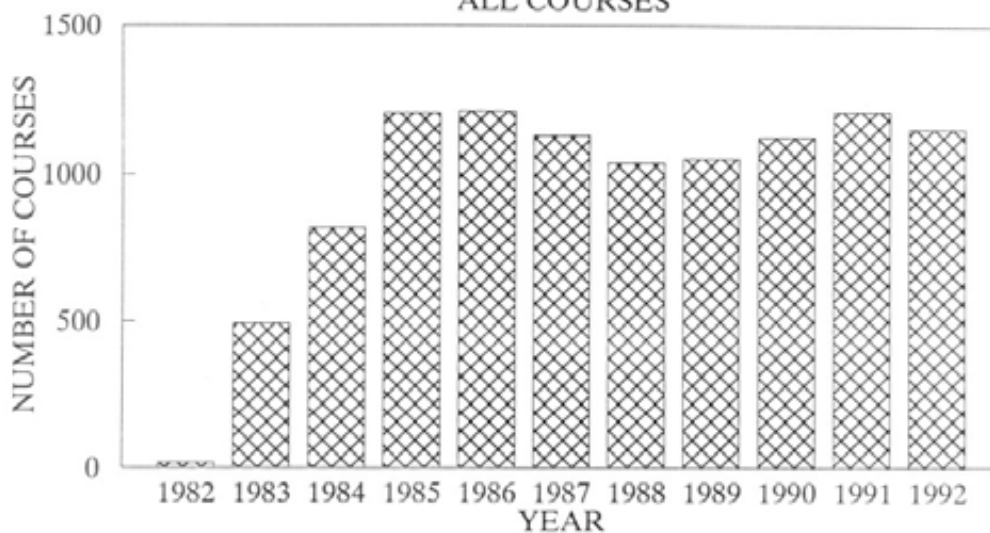
State with most active measurers: California, with 22 (35 last year)

Courses certified in 1991: 1149 (1208 last year)

30 people measured 10 or more courses, accounting for 47 percent of the courses certified last year.

COURSES CERTIFIED IN STATE IN 1992		COURSES CERTIFIED BY CERTIFIERS IN 92		ACTIVE MEASURERS IN STATE IN 1992		MEASURERS WITH 10 OR MORE	
CA	103	WN	136	CA	22	G Lafarlette	62
TX	85	PR	89	FL	20	R Scardera	43
OK	78	ETM	87	OH	18	A Linnerud	33
FL	73	BB	79	TX	18	J Knoedel	30
IL	72	JW	69	CO	17	D Brannen	24
OH	70	DL	67	NJ	12	W Nicoll	23
NJ	50	RS	61	AL	12	C Hinde	21
NC	49	BS	43	TN	12	M Courtney	20
NY	40	DB	42	MA	11	E McBrayer	20
SC	36	ACL	39	GA	11	G Witkowski	18
CO	36	BG	38	NY	11	P Riegel	16
GA	36	DP	36	NC	9	A Beach	16
KS	29	AM	34	IL	9	D Standish	15
PA	26	RE	25	ME	9	J Sissala	15
MA	26	CW	24	SC	8	G Newman	14
ME	26	EL	24	KS	7	L Richardson	14
AL	25	SH	22	PA	6	R Dewey	13
TN	23	RT	21	AK	6	G Tillson	13
MI	22	JD	21	VA	5	S Berglund	12
NH	20	JS	19	NH	5	D Connolly	12
CT	19	DR	19	MO	5	R Thurston	12
MD	17	MR	15	MD	5	S McDonald	12
DE	17	GAN	15	AR	5	J Ferguson	11
WA	17	RR	13	CT	5	J Kuo	11
VA	14	TK	11	KY	5	D White (SC)	11
MN	13	KU	11	DE	5	R Recker	10
KY	12	RH	10	OR	4	E Prytherch	10
UT	10	FH	10	OK	4	W Cornwell	10
AK	9	FW	10	WA	4	J Wight	10
AZ	9	LB	9	VT	4	T Knight	10
MO	9	FC	9	MI	4		
IA	8	MF	7	IN	3		
OR	8	MW	7	MS	3		
VT	8	DLP	5	IA	3		
NE	7	RN	5	AZ	3		
LA	6	KY	4	MN	3		
DC	6	WC	4	WV	2		
AR	5	WG	3	MT	2		
RI	4	GT	3	LA	2		
NM	4	BC	2	WI	2		
IN	4	TB	1	UT	2		
WV	3			NV	2		
MT	3			DC	2		
HI	3			NM	2		
MS	3			HI	2		
WI	3			NE	1		
NV	2			RI	1		
SD	1			SD	1		
	1149		1149		314		541

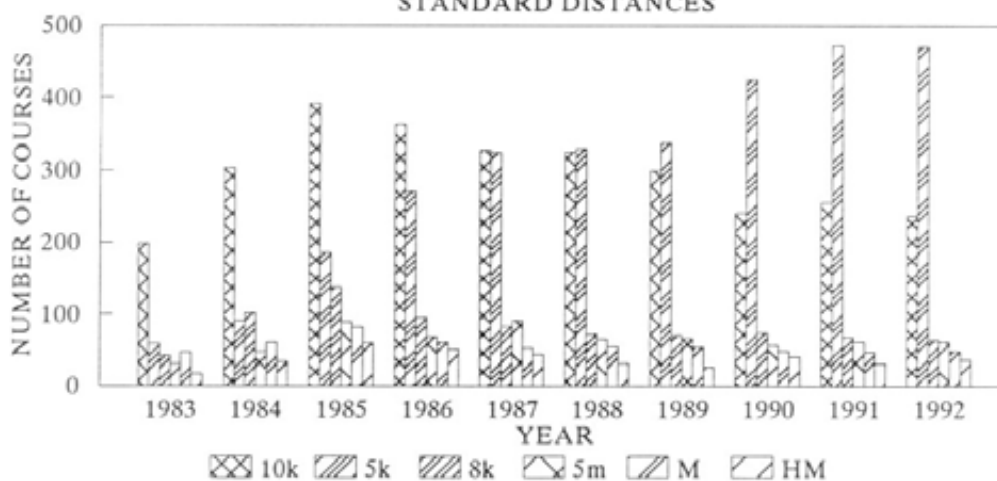
### USATF CERTIFIED COURSES BY YEAR ALL COURSES



### STANDARD DISTANCE USATF CERTIFIED COURSES

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
10k	198	303	392	363	327	325	299	240	255	236
5k	59	91	185	270	324	330	338	425	473	471
8k	42	101	137	95	83	72	70	74	67	64
5m	31	48	89	68	91	65	66	57	62	62
Mar	47	61	82	61	53	55	54	49	47	49
HMar	17	34	60	51	44	32	26	41	32	37
Cal	0	1	14	5	28	20	43	60	80	80
ALL	492	816	1204	1211	1129	1036	1050	1121	1208	1149

### USATF CERTIFIED COURSES STANDARD DISTANCES



## DUPLICATED COURSES

The course numbers listed below appear more than once in the course list. This generally happens when a single course map is used to describe a race course with a certified intermediate split, or when two race courses appear on the same map. These duplications may give certifiers or measurers undue credit for work done. For example, should Pete Riegel get credit for 19 courses certified, and Carl Hykes for 19 measured, when only one map and certificate was prepared?

<u>Course ID</u>	<u>Measurer</u>	<u>Times Listed</u>
DE 92014 WN	W Nicoll	2
FL 92068 DL	E McDowellJr	2
GA 92012 WN	D Koepfer	2
HI 92075 PR	P Riegel	2
HI 92085 PR	J Moberly	2
IL 92049 JW	C Hinde	4
MI 92015 SH	R Dewey	2
MI 92018 SH	R Dewey	2
MI 92019 SH	R Dewey	2
MN 92003 RR	R Recker	2
NC 92018 ACL	A Linnerud	2
NC 92023 ACL	A Linnerud	2
NC 92042 ACL	A Linnerud	2
NH 92018 WN	S Rak	2
NY 92004 DB	D Brannen	2
OH 92089 PR	P Riegel	2
OH 92091 PR	C Hykes	2
OH 92093 PR	T Wolf	2
OH 92094 PR	C Hykes	19
TX 92037 ETM	A Beach	2
VA 92024 RT	R Thurston	2
WA 92011 MR	D Summerfield	2
WA 92012 MR	D Summerfield	2

A look through the course list reveals that some of these courses are not multiple distances on the same course, but simply mistaken number duplications by certifiers. This is untidy, but not a capital offense. Certifiers above may wish to check the courses shown against their records.

This year's statistical summary includes only one listing for a given course number. Past years did not do this.

Road Running Technical Council



The Governing Body for Athletics in the United States  
including Track and Field, Long Distance  
Running and Race Walking for  
men and women and boys and girls  
at all age levels.

WAYNE B. NICOLL

Ragged Mountain Club  
Potter Place, New Hampshire 03265  
(603) 735-5721

Peter S. Riegel  
3354 Kirkham Road  
Columbus, OH 43221

10 April 1993

Dear Pete,

Here is a report on my trip to Monterrey, Mexico to measure two racewalk loops for the upcoming World Cup Racewalking Championships. When I was asked by the Organizing Committee to come to Monterrey I thought it was to do original measurements for them. It turned out that they had already measured the courses and needed validations and IAAF certificates. I had programmed more days than was really necessary to accomplish the tasks.

The arrangements were coordinated by Cesar Moreno, an IAAF official from Mexico City. We originally agreed to go in early March but when the Organizing Committee visited Monterrey they discovered subway construction was taking place on the courses. The trip was moved to 25-29 March. I made our flight arrangements since Sally had decided to go with me. They agreed to reimburse me for all expenses plus \$50 a day honorarium. We were disappointed when we arrived to learn we were not staying in the Clarion Monterrey, a nice hotel bordering the Gran Plaza and close to shopping, good restaurants, and the race course. Instead we were taken to an equally nice hotel, The Fiesta Americana, but it was located out of the city, requiring 15 minutes driving time to and from downtown Monterrey.

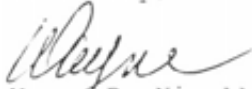
We arrived on Thursday afternoon, met our interpreter, Jesus Angel Mendiola, and the course measurer, Luciano Ramirez, and made the rounds meeting the members of the State Sports Office that were working on the Championships projects. It was fun getting acquainted with the Sports Director, Daniel Bautista, who I knew by reputation as the Olympic gold medalist in the 20K Walk in Montreal. On Friday I arranged with Luciano Ramirez to check a calibration course. Luciano was one of the Mexican students in the IAAF Measurement Seminar I conducted in Puerto Rico last summer. He had two calibration courses, one which ran through several intersections on a busy street parallel to the race course, and another short course that was laid on a section of the race course that was underground. It had the advantage of being dry and continually lighted, allowing us to calibrate and recalibrate whenever we pleased. It also had a wide smooth sidewalk that was safe to ride at any time. When I checked his 200 meter course, I discovered he had measured it with a fiberglass tape. The course turned out to be about 40 cm too long. I observed that if we measured the course from crosswalk to crosswalk we could extend the distance slightly. The crosswalks were made of inlaid stone, insuring the end points were permanent. The exact length was 216.145 meters.

The remainder of Friday AM was spent touring up into the mountain range that surrounds Monterrey. Friday afternoon we had an afternoon meal with the Sports Office people. On Saturday morning we met at the calibration course, calibrated, and rode the two courses. Both are closed loops of 1250 and 2500 meters in length. Both have a turnaround point on a side street on courses which otherwise were generally rectangular in shape. We were well protected by the local police and accomplished the bike measurement of the loops minus the side street the two turnarounds were on. We recalibrated before we began work on the turnarounds.

The original layout of the course was done with painted turnaround points on the street. At the Thursday visit with Daniel Bautista, he requested we build an arc at the turnarounds that would allow smooth flow of several walkers abreast. We decided an arc with a 2 meter radius would best fit the plan. We calculated the distances we had up until we reached the turnaround street, calculated the distance in the arcs, and then figured how far up the street we needed to have the arcs. We checked the layout distance with a bike, laid both arcs and painted and documented the location of the pivot point. Both turnaround marks laid earlier by Luciano fell inside of the arcs we laid.

Saturday PM we met with Jesus and Luciano and went over all of the calculations to insure Luciano understood the procedures used. Saturday evening we visited a nice restaurant with quality live entertainment. On Sunday we attended a bullfight with the Bautista family. The financial reimbursement was accomplished shortly before we departed on Monday. I would recommend that measurers in this situation ask the host to purchase the air ticket so you can avoid being reimbursed with a large sum of cash. We arrived home after a long flight delay at about 3:30 AM Tuesday. Both IAAF and USATF certificates with revised maps were prepared and sent to Daniel Bautista by courier.

Sincerely,



Wayne B. Nicoll  
IAAF Measurer

Copy: Bob Bowman, James Perkins, Jr.

## THE CERTIFIER TEST - HOW IT CAME OUT

The response to the certifier test was overwhelming. I'm grateful to those who took the time and trouble to respond. The test was just a simple set of data, but it contained enough pitfalls to trip up quite a few people.

About half of the responses were correct in all regards. Some people stumbled on calculating the length of the calibration course. Some respondents noted that since the measurers had been so sloppy in their riding, they decided to use the shorter of the calibration course measurements as official, rather than the average. One can't argue with this.

Estimates of the length of the calibration course varied from 304.73 m to 304.88 m, a range which would make about 5 m difference in 10 kilometers. Some used the minimum taped length as a base, some used the average. Some corrected for temperature, some did not. Of those who temperature-corrected, a few applied the correction in the wrong direction. At 41F the tape is shorter, thus measured lengths obtained must be reduced.

Others noticed the irregularity in the rides of the intermediate splits, but did not clearly know how to deal with the data. A few of these followed their gut feelings and asked for final adjustments that were just about right.

A few calculated the constants by using only the initial and final calibration reading, thus missing Jill's anomalous last calibration ride. This, of course, led them astray. Brian Smith, Carl Wisser and Roger Gibbons pointed out that Jill's last calibration ride is symptomatic of a sudden tire leak or puncture. When I wrote the test I attempted to make it be the result of a transposition, but a leaky tire is just as good an explanation.

If the data are calculated without any thought about what they mean, blindly following the "book," a required addition of about 5 m is obtained, which is the right answer but for the wrong reason. However, if this is done the two measurements do not agree within the required 8 m in 10 km.

Quite a number of foreign answers were received. In those cases I sent each respondent a copy of the calculations done using average constant, since that is the international standard. In this particular case, it makes little difference to the final answer, since calibration change was small.

Some comments received:

From Mike Tomlins (Great Britain) - "Under the BAF Measurement Scheme, we would require a lot more data and information about the course etc. But assuming good maps etc. the submission would probably equate to an average grade 2 measurer's report over here. I would expect something a bit better and more consistent from a grade 1 measurer!"

From Wayne Nicoll (Eastern RRTC Vice-Chairman) - "Overall quality is poor, considering the importance of the race." This sentiment was echoed by many respondents.

From Tom & Mary Anne McBrayer (with apologies to Mother Goose)

Jack and Jill both rode the course  
And measure up they did.  
But Jill's post-cal incurred her ire  
And so she bought a Riegel tire.



From John Disley (Great Britain) - "Final advice to Jack and Jill: Why not join the 21st century now and take your feet-measuring tape and Fahrenheit thermometer to the first barn-sale you cycle past?"

An alternative view of the test was taken by Amy Morss, whose letter may be seen next. Are we too competitive in what we do? Is there a better way to present comparative results? Are we too numbers oriented? If MN is not full of names and numbers, what should it be full of?

3/13/93

Hi Pete.

This is my response to The Test in MN, and while you probably won't find it giving you the data you desire, I had a strong need to say some things.

I have been sitting here trying to think of the right words to express the feelings I had when I read about The Test. I guess I have always had trouble with this aspect of measuring and MN and have kept it inside. I felt quite angry at first when I read about it, and then began to think about why I felt that way and will do my best to try to explain.

Competition was not the reason I got into measuring and certainly was not the reason I agreed to become a certifier. And yet it seems such a priority with many of the certifiers I have met over the years and seems a recurring theme within MN. Having been a competitive person in the course of my life I can appreciate the draw it can have over you and the need to continually look for it in certain places of one's life. For me competition got to be an unhealthy thing and often lead me into harmful practices and attitudes. Because of this I chose to try to change my attitudes about competition and not pit myself against other people, but rather simply try to do the best I could do for myself. It doesn't strike me that this is the attitude of MN.

Before I even became a certifier, and was just a measurer, I subscribed to MN and was struck by the competition and sometimes bickering that seemed to go on between measurers. In fact, it got to me so much that I realized I couldn't even get to the information presented and I stopped subscribing. And then, ironically, I became a certifier, and was put back on your list. I still have a very difficult time reading much of what's in there, and try very hard to pick out what I need to remain a competent measurer/certifier. It is important to me to be good at what I do, but my measurement of this, I believe, is somewhat different than yours.

I got into measuring many years back, not because I was a math whiz kid (which I'm not), but because I wanted to give something else to a sport that I loved. Competitiveness in running led to chronic injuries, so in order to stay involved I had to go a different route. Measuring was one way, and being involved in races from the management end was another. And lucky for me there was a great need in Connecticut at the time for measurers and I loved it. Even then, though, it wasn't the math or the statistical end of measuring that I enjoyed, it was the

social end of it: the meetings with other measurers, race directors and people involved with running. Certainly, I can handle the math that's needed to get me through a measurement, but I definitely don't get into the endless number crunching that many measurers seem to love (what will be the effect of wind on a runner who has eaten spaghetti the night before running a course that goes slightly uphill...). You catch my drift...

I feel that MN almost solely bases a measurer/certifier's expertise on his/her ability to crunch numbers, and I personally have felt degraded by MN on occasion by the way you chose to compare people and by what you chose to compare. As I have stated, math is not my high point and is not even why I'm into this game, but I still consider myself a good measurer and certifier. I do a lot more than crunch numbers. I put out a newsletter, I make efforts to meet my measurers personally and get some sort of rapport with them, even if it's only over the phone. I work hard to help out race directors that may be in crisis over a course, and even write letters to encourage new races to get measured. In other words, I'm good at the PR end of this business--and how do you rate that? Qualitative not quantitative--sorry about that, but that's where I feel I shine. MN doesn't seem to have room for that kind of side of measuring, and that's fine--it's your magazine and you have the right to do it any way you like, but I'm afraid I can't get into playing it that way. I feel extremely uncomfortable with this style, and in fact would have trouble ever going to a clinic again (like the one in Columbus) because I got so anxious about the competitive aspect of it and then the publishing of the results where I failed so terribly. Seems to me if a clinic is truly to be a learning experience, maybe the results shouldn't be published for everyone to see, but rather be a tool for the student to learn his/her weak points. It was quite a humiliating experience and would keep me from going again.

Anyway, Pete, I guess this all was going to get said sooner or later and for the longest time I was too intimidated by all the old-timers to express my feelings. Being the only woman for so long I didn't have the confidence to stand up against the different styles, but I know now that I do a fine job, have put New York state in a good place measuring-wise, and deserve to tell my side.

So, I would say you can't officially label me a DNR, because I am responding. If you insist on labelling me maybe RTC might be more appropriate: Refuses to Compete.

A handwritten signature in cursive script, appearing to be the word "my".

## RESULTS OF THE CERTIFIER TEST

The following people responded to the certifier test:

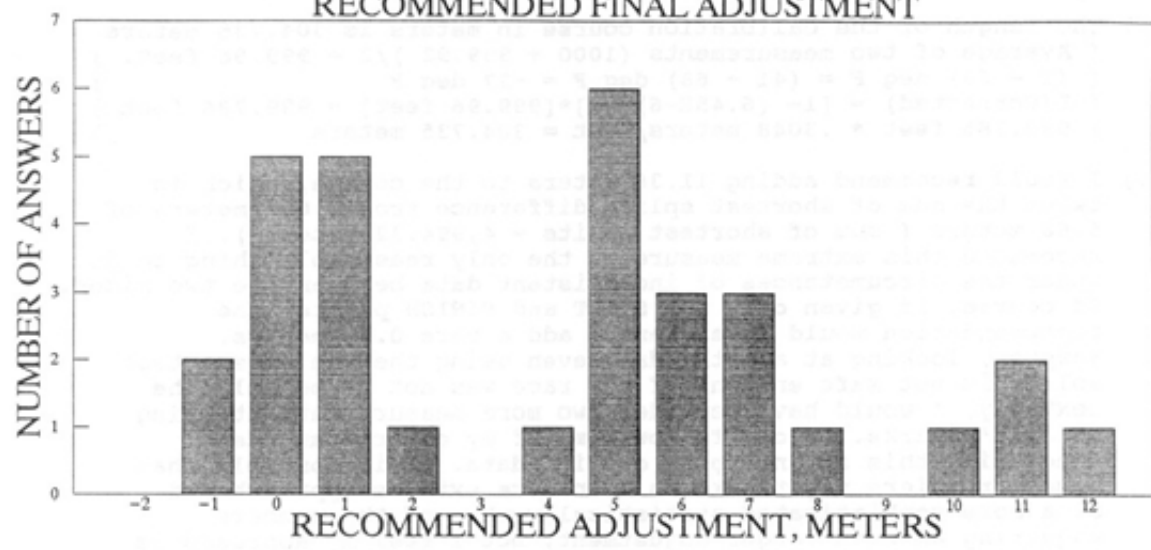
Bob Baumel, Bernie Conway (CAN), Dieter Damm (GER), Jean-Francois Delasalle (FRA), John Disley (GBR), Tom Ferguson, Michael Franke, Roger Gibbons (GBR), Bill Glauz, Bob Harrison, Carl Hykes, Helge Ibert (GER), John Jewell (GBR), Tom Knight, Elizabeth Longton, Tom McBrayer, Amy Morss, Ray Nelson, Gene Newman, Wayne Nicoll, Paul Oerth, Dave Poppers, Don Potter, Brian Smith, Mike Tomlins (GBR), Lothar Wenz (GER), Mike Wickiser, Jay Wight, Norrie Williamson (RSA), Carl Wisser, Bob Woods.

The following answers to calibration course length, and recommendations for final adjustment to the course, were received. The order shown below does not correspond to the order above.

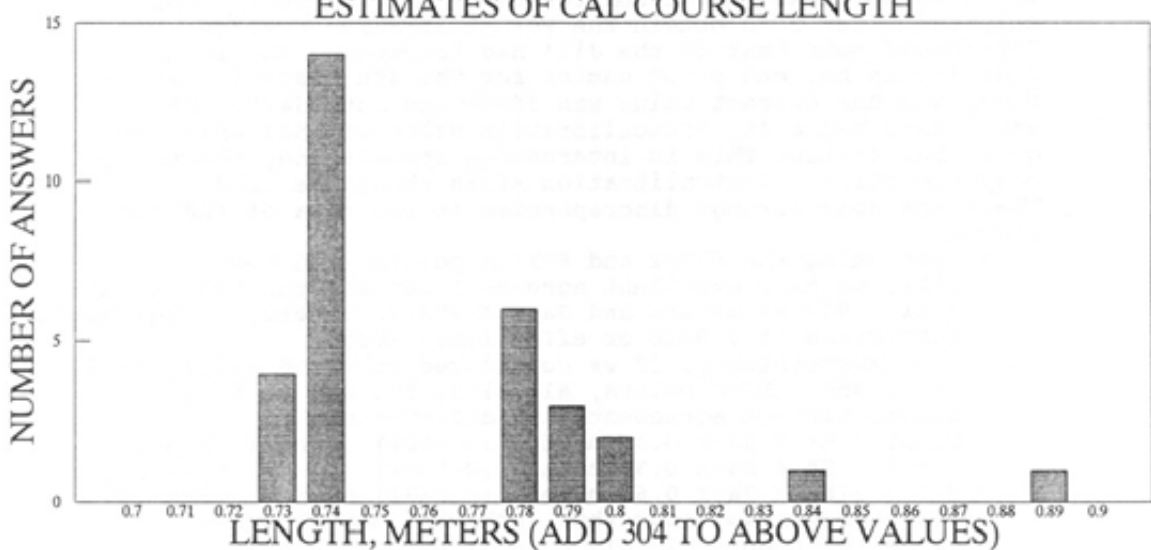
<u>Cal</u> <u>Course</u> <u>Meters</u>	<u>Final</u> <u>Adjust</u> <u>Meters</u>
304.725	-1.61
304.73	-1
304.73	-0.55
304.73	0
304.732	0
304.734	0
304.734	0
304.734	0.142
304.734	0.15
304.735	0.17
304.735	0.433
304.735	1
304.735	1.53
304.735	3.75
304.735	4.35
304.735	4.572
304.735	4.72
304.735	4.75
304.775	5
304.776	5
304.776	5.53
304.776	5.61
304.78	5.69
304.78	6.4
304.783	6.5
304.788	6.6
304.788	7.82
304.795	9.89
304.8	10.7
304.84	11
304.884	11.36

# CERTIFIER TEST

## RECOMMENDED FINAL ADJUSTMENT



## ESTIMATES OF CAL COURSE LENGTH



$\leftarrow$  5 cm  $\rightarrow$   
 + temperature correction

April 6, 1993

Certifier Test by Tom Knight

- 1.) The length of the calibration course in meters is 304.735 meters  
( Average of two measurements (1000 + 999.92 )/2 = 999.96 feet. )  
( (T - 68) deg F = (41 - 68) deg F = -27 deg F )  
( L(Corrected) = [1- (6.45E-6)\*27]\*[999.96 feet] = 999.786 feet )  
( 999.786 feet \* .3048 meters/foot = 304.735 meters )
- 2.) I would recommend adding 11.36 meters to the course, which is twice the sum of shortest splits difference from 5,000 meters of 5.68 meters ( sum of shortest splits = 4,994.32 meters ). I recommend this extreme measure as the only reasonable thing to do under the circumstances of inconsistent data between the two rides. Of course, if given only the START and FINISH points, the recommendation would have been to add a mere 0.14 meters. However, looking at all the data even using the sum of shortest splits is not safe enough. If the race was not to be held the next day, I would have demanded two more measurements stopping at Jill's marks. Below, follow some of my other comments concerning this strange/poor quality data. It is possible that some certifiers might take an even more extreme approach and do a more sophisticated statistical workup of the numbers requiring an even larger adjustment, but I feel my approach is conservative enough.
- 3.) (a) The first discrepancy in the data was with the 4th Postcalibration ride of Jill's. It differed from the other 3 Postcalibration ride in value by a whopping 0.52% . That is its value was 3540 compared to the other 3 rides of 3521, 3521, and 3523 . This is so unlikely, that the best thing to do under the circumstances is to drop it and use only the other 3 to obtain the Postcalibration average. One should note that if the Jill had transposed the last 2 digits in her end point number for the 4th Postcalibration ride, and the correct value was 26457 and not 26475, she would have had a 4th Postcalibration value of 3522 which is quite believable. This is interesting speculation, but still only the first 3 Postcalibration rides should be used.  
(b) Their are some strange discrepancies in the data of the two rides:
  - (i) Just using the START and FINISH points laid down by Jill, we have excellent agreement between the two rides: Jill 4,999.86 meters and Jack 4,999.93 meters, a negligible difference of 0.001% or effectively zero .
  - (ii) Also surprisingly, if we considered only the START, KM 2 KM 4, and FINISH points, all along the way we have almost perfect agreement with differences:  
START - KM 2 Jack 0.36 meters (0.018%) longer than Jill  
KM 2 - KM 4 Jack 0.36 meters (0.018%) longer than Jill  
KM 4 - FINISH Jack 0.63 meters (0.063%) shorter than Jill  
It is very suspicious that Jack obtained the exact same number of counts (22,414 counts) between START - KM 2 as between KM 2 and KM 4 , particularly in light of what I note in (iii) below.
  - (iii) However when we use all the data given we get:  
START - KM 1 Jack 2.23 meters (0.22 %) shorter than Jill



# TEST FOR CERTIFIERS

## THE ANSWERS

First measurement of cal course =	1000 ft	304.8 m
Second measurement of cal course =	999.92 feet	304.7756 m
Average =	999.96 feet	304.7878 m
Temperature =	41F	5C
Temperature correction =	-0.174 feet	-0.053 m
Length of calibration course =	999.7859 feet	304.7347 meters

### Precalibration:

<u>Jack</u>	<u>Jill</u>
37000	88900
40411      3411    3411.25 avg	92422      3522    3521.75 avg
43823      3412    11.19416 cts/m	95944      3522    11.55677 cts/m
47234      3411    11.20536 w/1.001	99465      3521    11.56833 w/1.001
50645      3411	2987      3522

Layout constant = 11205.36 cts/km	11568.33 cts/km
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### Postcalibration:

<u>Jack</u>	<u>Jill</u>
42133	12370
45542      3409    3409.25 Avg	15891      3521    3526.25 Avg
48952      3410    11.1876 Cts/m	19412      3521    11.57154 Cts/m
52361      3409    11.19879 W/1.001	22935      3523    11.58311 W/1.001
55770      3409	26475      3540

Note: Jill's last calibration ride is highly suspect. It may have been caused by a transposition (26457 written down as 26475), or perhaps by a sudden leak of air from the tire. In any case, her postcalibration constant, based on only the first three rides, is:

3521	3521.667	Avg
3521	11.5565	Cts/m
3523	11.56806	W/1.001

Postcal constant = 11198.79 cts/km	11568.06 cts/km
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Day's constant (larger) = 11205.36 cts/km	11568.33 cts/km
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Data obtained on course:

POINT	Jack			Jill			SHORTER SPLIT
	RECORDED COUNT	INTERVAL COUNT	INTERVAL METERS	RECORDED COUNT	INTERVAL COUNT	INTERVAL METERS	
START	23000			89030			
KM 1	34180	11180	997.74	100598	11568	999.97	997.74
KM 2	45414	11234	1002.56	112166	11568	999.97	999.97
KM 3	56589	11175	997.29	123734	11568	999.97	997.29
KM 4	67828	11239	1003.00	135302	11568	999.97	999.97
FINISH	79026	11198	999.34	146870	11568	999.97	999.34
Sum		56026	4999.93		57840	4999.86	4994.31

Agreement between measurements = 0.07 meters

Note the highly irregular measurements of the splits. Although overall agreement is excellent, this is only because of compensating errors, and the course is around 5 m shorter than its overall measurement would indicate.

Final adjustment =  $5000 - 4999.86 = 0.1$  meters (based on "by the book")

Final adjustment =  $5000 - 4994.31 = 5.7$  meters (based on sum of shorter splits)

Test characteristics:

- 1) Calibration course measurement data is straightforward. Correct calculation uses the average taped value as a base, and applies temperature correction to it to obtain correct length.
- 2) Jill's postcal data contains a pitfall. If the individual rides are not calculated, the final odd value will be overlooked, and it will appear that Jill had a large increase in her constant during the measurement. The proper procedure is to disregard that final ride.
- 3) The overall measurements appear to agree very well, given a superficial look. However, if the measured values of the intervals are compared, it is obvious that the sum of shorter splits is over 5 meters less than either overall measured value.

If you certify this "by the book" you will be certifying a short course. Better is to require that 5 to 6 meters be added before final marking of the course.



296 Barkham Road  
Wokingham  
Berks RGII 4DA

March 20th 1993.

Dear Peter Riegel

Many thanks for 'Measurement News' No 58 for March 1993, which I have now passed on to Our Roger Gibbons as previously explained. I am particularly interested in the letter you received from Jean de la Salle and in your reply.

As you rightly point out it is very unfortunate that the most important races do not conform to the suggested criteria for the acceptance of road records; i.e. the 1992 Barcelona Olympic Marathon, the 1992 Tyneside world Half Marathon and the 1993 Brussels Half Marathon. However why should you consider such prestigious events should conform to limitations such as your group is considering?

The organisers of such important races have more vital problems to solve. The course, amongst other factors will be governed by the local geography; the Boston by the long established tradition of the race. We are quite aware that the Tyneside Half Marathon could not be accepted for records; a place to place route with predominantly following wind; so what? This would scarcely worry the organiser.

I am quite aware the popular cry is for 'records', in this case for road running records. However records should not become publicity gimmicks but based on rational athletic standards if they are to receive the respect of the athletic community.

Put yourself in the shoes of any of the events above. what would you do. I suggest the outcome would be to ignore that validation for your race would not be possible. and carry on.

I strongly support the general opinion of the road running community in this country that course records or best performances are meaningful and acceptable, and not go beyond this. Otherwise much time and money will be spent and to establish road records by distance and will frequently be ignored in the big races.

Perhaps your colleagues will consider this point which you have unearthed I am aware of the great work you are doing in this field and will not take this amiss.

I will try and keep this letter brief but want to mention several other matters. Both Mike Tomlins and I are surprised to find in the IAAF 'The Measurement of Road Race Courses' no mention of the Electronic Distance Measurer for the measurement of the calibration distance. It has been in general use in this country for many years.

Also- I did write to John Holt a few years ago when he was IAAF secretary that it was somewhat ridiculous that the times for the Marathon should be recorded to one second. This was not based on the accuracy required being perhaps to within 6 metres but to a definition of the Marathon, which had appeared in print being in the range 42195 to 42237 m. There must surely be a corresponding range in time, perhaps 5 seconds?

You will recollect that our Steve Jones won the Chicago Marathon a few years ago, one second better than the previous best time, for which he received some tens of thousand dollars.

I had the support of our Richard Smith member of the RRC Council and active road runner on this point. Unfortunately he joined our 'Brain Drain' three years ago, and is now a Professor in the Mathematics Dept of North Carolina University (4314 Oak Hill Rd, NC 27514). I would suggest <sup>writing</sup> to him before publishing anything as since taking this new appointment he has not become involved in athletics..

I heard from him this week. He is touring France just now.

yours sincerely

John Jewell



## USA TRACK & FIELD

Peter S. Riegel  
Chairman, Road Running Technical Council  
3354 Kirkham Road  
Columbus, OH 43221

614-451-5617 (home)  
614-424-4009 (work)  
614-424-5263 (FAX, work)

March 30, 1993

John Jewell - 296 Barkham Road - Wokingham, Berks RG11 4DA - GREAT BRITAIN

Dear John,

It was good to hear from you again. Thanks for submitting your answer to the certifier test. I'm getting a very large response to it. Enclosed are the answers. You can read about it in the next Measurement News.

As for your comment that a 1000 foot or 300 m calibration course is normally too short for a calibration distance, I can only say that experiments done here have shown no significant difference in riding constant whether one rides 300 metres or a kilometre. This being the case, why do any more work than needed to do the job? The IAAF minimum of 500 metres was arrived at by consensus, not by experiment. The US limit was felt by those choosing the IAAF limit as being just a bit too short for comfort - thus 500 metres was chosen. I stand by our use of 300 metres - we can justify it experimentally. Can others justify their limits?

You mistakenly assume that I advocate that events make their courses conform to the limits of 1 m/km drop and 30 percent separation. Absolutely wrong. I have never advocated such a thing. To do so would destroy the essential character of many races.

However, I do strongly advocate the use of such limits in the operation of a records system. Those limits are necessary if records are to be credible. Without limits the records will come to rest at courses that are downhill or wind-aided. This would place the athletes who race at the 90 percent of unaided courses at a disadvantage. The limits are not particularly restrictive nor severe. When we were researching the effects of such limits, we found that 90 percent of US courses already conformed to the limits. I suspect things are not that different elsewhere.

Many athletes and events choose not to emphasize records. Well and good - that is their privilege. But it ought also to be the privilege of those who choose to recognize records to do so. We do not have to operate in lockstep, but it would be good if there could be tolerance applied on both sides of the issue. Unfortunately, a few zealots advocating records feel that everyone must set things up so that records may happen, at all events. On the other side, fearful people who advocate "course records only" feel that the records people are out to get them. This is divisive and harmful.

Records are going to exist whether they are officially recognized by governing bodies or not. The fans want them, and the media seek information to inform the fans. Better the information should be credible.

From my perspective as an American measurer, the single most salutary effect of our records approach - remeasuring courses on which records are set - has been an instilling of a healthy touch of fear in every one of us. We are always aware that our work may be checked, and this makes us very careful to do things right. This has made our courses accurate, and has provided data that indicates how well we are doing the job.

It is fine to train people, with the goal of getting accurate courses. It is another thing to check and see how things are going. In the US we permit anyone at all to measure a course and get it certified if the paperwork is proper. To date we have checked over 150 courses. Over 90 percent have passed the test, and few of those that failed were seriously short. This tells us that things are healthy here. We do not have to assume it - we have measured it.

Without a records system which requires remeasurement, we would not have obtained that information.

As for the use of Electronic Distance Measuring (EDM) equipment for measuring calibration courses, it is certainly an accurate way to do the job. However, when one considers the time involved in obtaining the instrument and returning it to the shop whence it came, it is hugely time-consuming compared to the use of the steel tape, and the slight increase in accuracy is meaningless.

With help I can lay out a 500 metre calibration course in about 20 minutes, using a steel tape, and it has all the accuracy needed for our purposes. EDM carries an implication of great accuracy, but by the time the calibration course is translated by bike into a race course, the difference is undetectable. EDM measurements provide nothing that steel taping does not.

I have seen the proposal that long races be timed to less precision before. The reasoning behind it is sound. In the last MN we took a look at some US tracks that had been remeasured, and found that the accuracy was comparable to road courses. One could make the same argument for 10,000 metres on the track as for the marathon.

My own view is that the healthy thing is to assume that all courses of a given nominal length are equal. This is not so - in real life no two things are exactly the same - but it is close enough. Then apply the timing as you wish. The athletes know what they have to do - they have to beat the existing record by whatever is the minimum timed increment.

Thanks for writing. It's always good to hear from you.

Best regards,

A handwritten signature in cursive script, appearing to read "Pete".

**ANOTHER CERTIFIER TEST? OH, NO!!!**

I met Paul Hodgson in London recently, and he apologized for not responding to the Certifier Test, but made partial amends by giving me a copy of a test he had given to measurers at a recent seminar he gave for the North of England AA. It was a tricky devil - I could not rest until I had done it, and I sweated over it for an hour and a half, and later mailed him my answers. As of this writing I have no idea whether they agree with his. I have not checked them since copying and mailing them.

You will find his test on the next pages. If you feel like it, take it yourself and send me the answers. I will tabulate them as I did for last month's test. NOTE - do not expect a personal reply this time! The correspondence on the other test wore me out. You will have to wait for next MN to see how things come out.

Readers wishing to see the answers I gave will find them elsewhere in this MN. It seemed only fair to subject myself to the same pressures I am asking others to endure. I can hardly wait to hear from Paul to see how I did, and probably to argue with him if I don't agree! Don't peek at the answers I gave until you take the test! After you have worked things out, feel free to let me know where I made my mistakes.



ANTONIO TORRES

PAUL HODGSON

27th March 1993

1. During the calibration rides over a base line of 800 metres the following results were obtained:-

RIDE	START COUNT	FINISH COUNT
1	83625	91570
2	91600	99547
3	99600	(1)07547
4	07550	15498

Determine the number of counts per mile to be used when the course measurement is carried out. Incorporate the short course correction factor in your answer.

2. List briefly four sources of error which could affect the accuracy of a calibration baseline being established using a steel tape.

3. During the measurement of a 5 mile road race course a reference point "A" was left adjacent to a gatepost at the entrance to a sports field. The Jones Counter readings being noted as follows:

Counter Reading	Remarks
57683	Start
(1)37216	Ref "A"

Using a calibration figure of 9970 counts/kilometre. Calculate the distance to be measured from the gate post to the finishing line. The short course correction factor has been included in the calibration figure.

4. A calibration base line of length 2,000 feet has been set out, your accepted counts during the calibration procedure is 6,075.

Calculate the number of digits to be recorded on the Jones Counter when measuring a 5K road race course. Incorporate the short course correction factor in your answer.

6. A road race course consists of a number of circular laps, a lap being found to be 4987.5 metres. Two races are to be held over distances of 10K & 15K with the finishing line being common to both events. Calculate :-
- The distance to be measured back from the finish line to the start of both events.
  - The position (in metres) of a 3 mile marker for the 10k race relative to the finish line.
7. A 10k race is to be held on a lap course. Two separate lap measurements have recorded 34,534, and 34,550 counts, and your accepted calibration figure is 10,010 counts per kilometre.
- The finish is a fixed point at the entrance to a Leisure Centre. Evaluate the following :-
- The number of counts required to set out the Start Line relative to the Finish, and the counts required to establish the 1 Mile mark.
  - On the day of the race you are unexpectedly asked to set out the remaining mile points (i.e. 2, 3, 4, & 5) using a Surveyors wheel. Keeping the distances to be measured to a minimum, how could you achieve this ?

IF YOU INTEND  
TO TAKE THIS TEST,  
DO NOT PEEK AT  
PAGE 51. PETE'S  
ANSWERS - RIGHT OR  
WRONG - ARE THERE.

3354 Kirkham Road  
Columbus, OH 43221  
March 20, 1993

Paul Hodgson  
29, Rookhope  
Rickleton, Washington  
Tyne & Wear NE 38 9HW  
GREAT BRITAIN

Dear Paul:

What fun to see a photo of you and Antonio Torres with the Columbus Marathon poster on the wall in the background. I had no idea you had measured the course. Perhaps you'd be interested in knowing how the poster came to be there:

Seville is our official marathon "sister city", and as such awards its local male and female winners with a trip to Columbus, Ohio, to run our race in the fall. We do the same -- our local runners travel to Seville in February to run the City of Seville Marathon. Antonio accompanied the Spanish runners to the states and was given one of our posters. I was happy to see it in his office.

Last year the quincentennial celebration of Columbus' arrival in the new world was a huge celebration here in our city. We built an authentic Santa Maria replica, now moored downtown along the riverfront. We held a world class floral exhibition in a city park, and, of course, we hosted the U.S. Men's Olympic Marathon Trials in April.

To reward ourselves for organizing three marathons in eleven months, race director Doug Thurston and I accompanied the two local winners to Seville. We were a party of seven, one of us fluent in Spanish. We set out to connect with Christopher Columbus. We discovered there's not too much solid history left after 500 years, but we did see his tomb in the Cathedral. I managed to bring home a copy of a letter Columbus wrote to his son. All I can read is the salutation, Mio caro filio. But at least I can see his handwriting.

The exchange process will repeat again this year. Our 1992 winners ran in Seville in February, 1993, and we are looking forward to the Sevillians participating in our race in October. Maybe Antonio will come with them. If he does, he'll see a Seville poster hanging in our office!

Best regards,



March 8, 1993

Dr. Bill Glauz  
11600 E. Minor Dr.  
Kansas City, MO 64114

101 N. Brookforest  
Derby, KS 67037

Dear Bill:

Enclosed, is a certification application for the "Flight Line 10K" a new course to be run entirely on the runways and taxiways at McConnell AFB at Wichita, Kansas. A certification measurements go, this one will rank up there with one of the most interesting. As far as the course itself, it is a relatively simple "keyhole" course with long straightaways. However, the day that we made our measurements, the runways were active and we had to wait several times for F-16's to take off and land, shoot landings, etc. Every time we crossed a main runway, my escort (flashing lights and all) had to radio the tower for clearance because those jets can be on you in nothing flat from a long ways away! Not at all like doing a busy street.

The high point of the day came when we were told by the tower that we were to vacate the runway ASAP. I just noted my counts at a permanent reference on the pavement and we all pulled out onto the grass at the south end of the runway. After a short delay, a B-1B bomber came taxiing down the taxiway, turned and took off to the north. We couldn't have been more than a couple hundred feet away. Talk about loud! The vibrations alone, even with my hands over my ears, shook me from head to toe. After the B-1B took off, I went back to the spot where I had stopped, rolled the counter back to the previous total, and rode on. Also, I don't know if you are aware, but the USAF has deployed arresting cables, similar to those used on aircraft carrier decks, to stop planes who have lost engine or hydraulic function. If you've ever seen one of these, you will know that there is quite a lot of mechanism associated with the arresting system. The mechanism that hooks onto the cable protrudes out over the edge of the runway right in the way of my path. The height of this was about 8" and, since a runner could conceivably jump over it, and since I couldn't ride over it, I had to stop my bike and walk the bike up and over the mechanism each time I passed one of the cables. Some fun!

You will note a 6.5 meter discrepancy between the first and last rides with the second ride being the shortest. I think the error came when I mistakenly started to turn down the east runway instead of the #8 taxiway. As I realized my

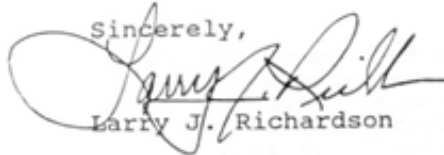


error, I veered immediately back on course which resulted in a 6.5 meter "dipsy-do" which was detected by the check ride. In any case, we fixed the problem to bring the course back to proper length.

You will also note that the race date is April 18, which gives us a little over 30 days. Again, I'm sorry about rushing you with these last-minute certification requests, but I'd rather have these courses certified than not. Also, we've been hampered with weather problems that are a little out of the ordinary.

Let me know if you have any questions. Thank you for your help.

Sincerely,



Larry J. Richardson

---

Dear Pete,

I thought I'd submit a puzzle idea for your newsletter. This puzzle involves not only actually measuring but also coming up with a unit and a method for doing the measuring. The "object" to be measured is a house cat.

The standard used for measuring cats until now has been to weigh them, but we want to know how big the cat is, not how much she weighs. The challenge arises in that while the mass of the cat is a constant, the shape varies continually. While the height of a human being varies only a few inches, depending upon the attitude one assumes, the size, or measured distance between two points on or around the cat's body can vary by as much as 100 percent (a cat in the "meat loaf" position is twice as wide as the same cat stretching out after a nap).

Since a cat can squeeze through a space as small as her head, you could try measuring heads, since they do not vary in size once the cat has grown. You could then extrapolate the rest of the cat's size based on head size, but this may not be too accurate.

To anyone who suggests using a liquid-displacement method, consider not only the difficulty in getting the cat into the liquid, but that the cat's fur will absorb a substantial amount, making your end recalibration difficult at best. The cat may also discharge some liquid of her own in an attempt to avoid being measured in this way.

We have four cats of varying sizes and would appreciate any help in measuring them that readers of MN can offer.

Sincerely,



Stu and Libby Riegel

**FLIGHT LINE 10K**  
McCONNELL AFB, KANSAS

START: 7.5 METERS SOUTH OF 4th "POL EMERGENCY STOP" BOX FROM NORTH END OF #8 TAXIWAY - ON WEST EDGE OF PAVEMENT.

MILE 1: ON EDGE OF WEST RUNWAY. 3.9 METERS SOUTH OF "300M" SIGN INDICATING NO. END OF RUNWAY.

MILE 2: ON EAST EDGE OF WEST RUNWAY, 28.8 METERS SOUTH OF 4th RUNWAY LIGHT SOUTH OF CROSSOVER TAXIWAY #6.

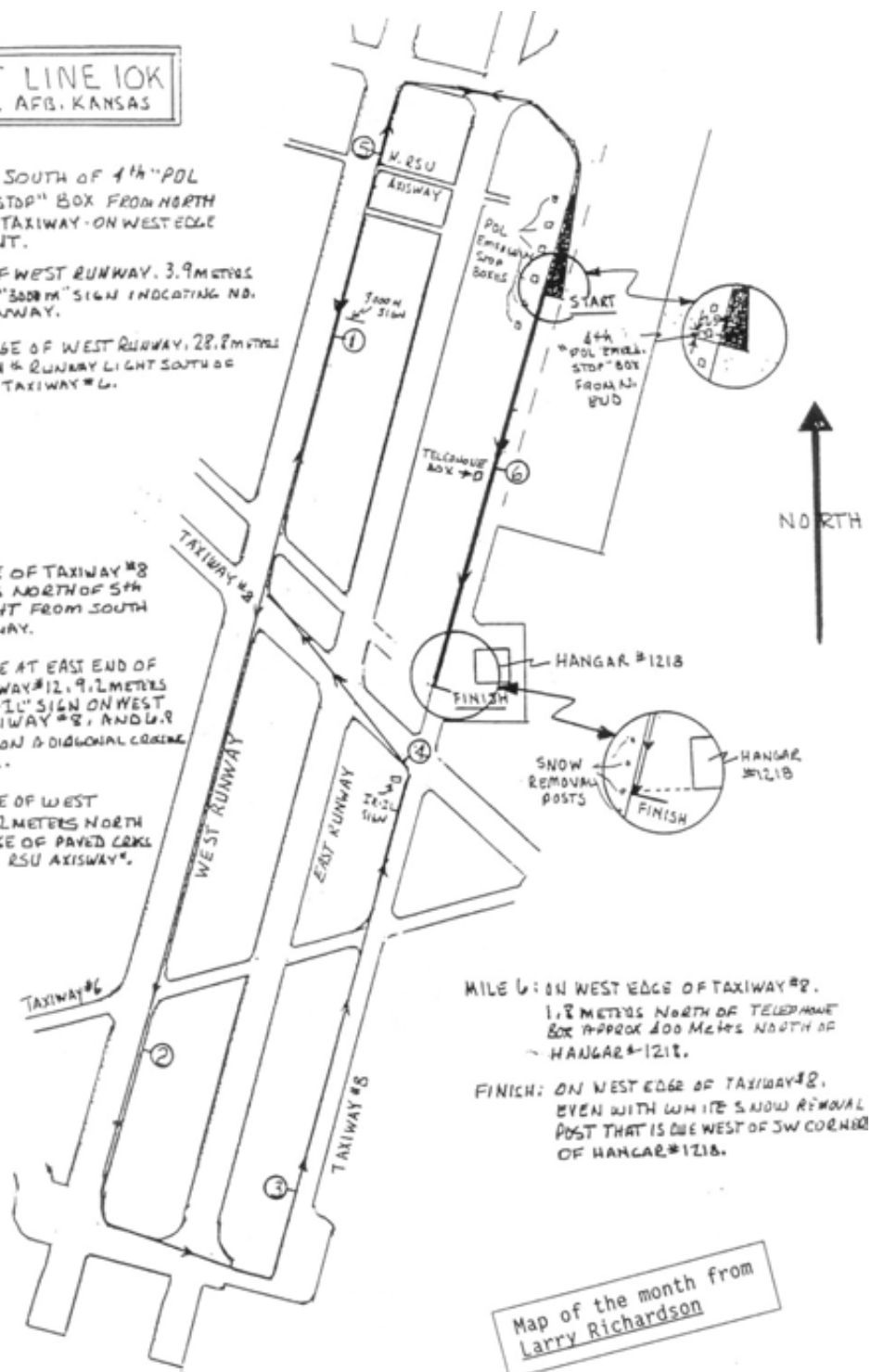
MILE 3: ON WEST EDGE OF TAXIWAY #8 12.7 METERS NORTH OF 5th TAXIWAY LIGHT FROM SOUTH END OF TAXIWAY.

MILE 4: ON SOUTH SIDE AT EAST END OF CROSSIER TAXIWAY #12. 9.2 METERS NORTH OF "IR-IL" SIGN ON WEST SIDE OF TAXIWAY #8, AND 6.8 METERS WEST ON A DIAGONAL CROSSING TAXIWAY #12.

MILE 5: ON EAST EDGE OF WEST RUNWAY. 10.2 METERS NORTH OF SOUTH EDGE OF PAVED COBBLE WALK "NORTH RSU AXISWAY".

MILE 6: ON WEST EDGE OF TAXIWAY #8. 1.8 METERS NORTH OF TELEPHONE BOX APPROX 100 METERS NORTH OF HANGAR #1218.

FINISH: ON WEST EDGE OF TAXIWAY #8. EVEN WITH WHITE SNOW REMOVAL POST THAT IS ONE WEST OF SW CORNER OF HANGAR #1218.



Map of the month from  
Larry Richardson

**Minutes of a Meeting on Course Measurement  
held in Nice, France  
27 February 1993**

This memo has been slightly edited by Pete Riegel to reflect new information obtained from Sue Richardson on 13 April 1993.

PRESENT:	Otto Klappert	Chairman, IAAF Cross Country & Road Running Committee
	Pierre Weiss	IAAF General Director
	Ted Paulin	Chairman, AIMS Technical Sub Committee
	John Disley	International Course Measurer
	Peter Riegel	International Course Measurer
	Jean François Delasalle	International Course Measurer
	Sue Richardson	IAAF Staff

Distribution: Attendees, Enrico Jacomini, Mark Horley, AIMS Board of Director

Otto Klappert opened the meeting by stressing the need for correct course measurement for road races and said that, at present, there were two lists of approved course measurers - IAAF and AIMS. During this meeting it was hoped to combine these lists. He also wished to establish a procedure for approving new measurers and for a grading system.

It was agreed that the following grading system would be instituted which follow the same format as a system that would be used for Technical Officials:

- C National Measurers
- B Area Measurers
- A International Measurers

However, this would have to be approved by the IAAF Cross Country and Road Running Committee and the AIMS Board of Directors. Hopefully, approval would be gained from the IAAF at their meeting to be held in Amorebieta at the end of March and from AIMS at their meeting in Lisbon in the middle of March.

A joint IAAF/AIMS list of measurers was agreed (see Appendix A)

There then followed a discussion on the criteria for grades C and B and the method of promotion from C to B.

It was agreed that C (National Measurers) would have to successfully complete a course measurement seminar. They would then be able to measure courses within their own countries, administered by their Member Federation. If a measurer wished to progress to the B Grade (Area Measurer), the following procedure would be followed:

- In conjunction with his/her Member Federation, send paperwork of four measurements done within the previous twelve months to the Area

Administrator (see Appendix B)

- If paperwork is satisfactory, the Area Administrator will arrange for a fifth course to be measured together with an International Measurer whose travel and accommodation must be paid for by the Member Federation of the aspirant B measurer. The International Measurer will check the work of the National Measurer and make his recommendation on whether or not he/she could be upgraded to the Area Administrator

This system would be operated for one year and reviewed at the end of that time. The procedure for upgrading from Area to International Measurer would be drawn up at that time also. However, only International grade measurers would be empowered to measure Championship courses and "big" road races.

Discussions would be held with a view to publishing a joint IAAF/AIMS course measurement booklet rather than the two separate publications that are available at present.

## APPENDIX A

### IAAF/AIMS APPROVED COURSE MEASURERS

#### INTERNATIONAL - Grade A

##### AUSTRALIA

Dave Cundy, PO Box 252, Canberra 2601, ACT.

Gary Nicholls, 10 Tester Drive, Blackwood 5051, South Australia.

Ted Paulin, Melbourne Marathon Inc., Olympic Park, Swan Street, Melbourne 3004, Victoria.

##### CANADA

Bernard Conway, 67 Southwood Crescent, London, Ontario N6J 1S8.

##### FRANCE

Jean François Delasalle, Domaine de Chantraigne BP 25, 80800 Corbie.

##### GERMANY

Harry Arndt, Sudring 5, D 6458 Rodenbach.

Wolfram Bleul, OSC Hoechst, PO Box 800645, D6230 Frankfurt 80.

Dieter Damm, Adolph Kolping Str. 10, D-6238 Hofheim am Taunus 1.

Lothar Wenz, Liederbacherstr. 21, D-6230 Frankfurt 80.

## GREAT BRITAIN

Dave Bendy, The Patch, Penswell Road, Minehead, Somerset.  
Max Coleby, 98 Lindisfarnek Road, Newton Hall, Durham, DH1 5YQ.  
John Disley, Hampton House, Upper Sunbury Road, Hampton, Middlesex TW12 2DW.  
Paul Hodgson, 29 Rookhope, Rickleton, Washington NE28 9HW.  
Ian Macintosh, 8 Ferndale Avenue, Longwell Green, Bristol BS15 6XS.  
Mike Tomlins, 56 Squires Lane, Finchley, London N.3.

## JAPAN

Shimazu Iizuka, C/o Japan Amateur Athletic Association, 1-1-1 Jinnan,  
Shibuya-ku, Tokyo 150.

## NEW ZEALAND

Andy Galloway, PO Box 10106, Hamilton.

## POLAND

Tadeusz Dziekonski, 15-057 ul. Chrobregp 4 M (Skrytka Pocztowa), 15-057 Bialystok.

## SPAIN

Josep Sole, Jonqueres 16 9C, 08003 Barcelona.

## SWEDEN

Lennart Bresky, Krangedev 19, S-115 43 Stockholm.  
Lennart Julin, Gastrikeg 14, S-113 43 Stockholm.

## USA

Dr Robert T. Baumel, 129 Warwick Road, Ponca City, OK 74601.  
Dan Brannen, 40 Witherspoon Court, Morris Township, NJ 07960.  
Scott Hubbard, 603 Ross, Ann Arbor, MI 48103.  
Dr Thomas D. Knight, 307 Dartmouth Ave, San Carlos, CA 94070.  
Doug Loeffler, 1399 W. Royal Palm Rd, Boca Raton, FL 33486.  
E. T. McBrayer, 7733 Moline, Houston, TX 77087.  
Wayne Nicoll, Ragged Mountain Club, PO Box 62, Potter Place, NH 03265.  
Peter Riegel, 3354 Kirkham Road, Columbus, OH 43221.  
Robert Thurston, 13 Kennedy St NE, Washington, DC 20011.  
Mike Wickiser, 2939 Vincent Rd, Silver Lake, OH 44224.  
Jay Wight, 4419 Thornbark Court, Hoffman Estates, IL 60195.

AREA - Grade B

ARGENTINA

Alberto Cabaleiro, Correa 4347, 1430 Buenos Aires.

Rolando Czerwiak, Roseti 1163 - 7B, CC 13 Sucursal 27, 1427 Buenos Aires.

BRAZIL

Rudolfo Eichler, Rua de Rocio, 351/8 Andar, Vila Olimpia 04552, Sao Paulo.

HONG KONG

Nicholas Brooke, 3801 Sun Hung Kai Centre, 30 Harbour Road, Hong Kong

KENYA

John Velzian, IAAF Regional Development Centre, PO Box 14110, Nairobi.

NETHERLANDS

Dick van Maaren, C/o Rotterdam Marathon, Postbus 1627, 3000 BP Rotterdam

Wim Visser, Prof R. Casimirstraat 79, 1068 KT Amsterdam.

PR CHINA: Zhao Xue Hong, Athletic Association of PR of China, 9 Tiyuguan Road, Beijing.



John  
Disley

Ted  
Paulin

Jean-Francois  
Delasalle

Pete  
Riegel

## AREA ADMINISTRATORS

**Jean François Delasalle** Domaine de Chantraigne BP 25, 80800 Corbie.

To cover: Algeria, Andorra, Angola, Belgium, Benin, Burkina Fasso, Burundi, Cameroon, Central African Republic, Chad, Comores, Congo, Cyprus, Djibouti, Equatorial Guinea, France, Gabon, Gibraltar, Greece, Guinea, Guinea-Bissau, Italy, Ivory Coast, Luxembourg, Madagascar, Mali, Malta, Mauretania, Mauritius, Moldova, Monaco, Morocco, Niger, Portugal, Rwanda, San Marino, Sao Tome, Senegal, Seychelles, Spain, Switzerland, Tunisia, Turkey, Zaire

**John Disley**, Hampton House, Upper Sunbury Road, Hampton, Middlesex TW12 2DW.

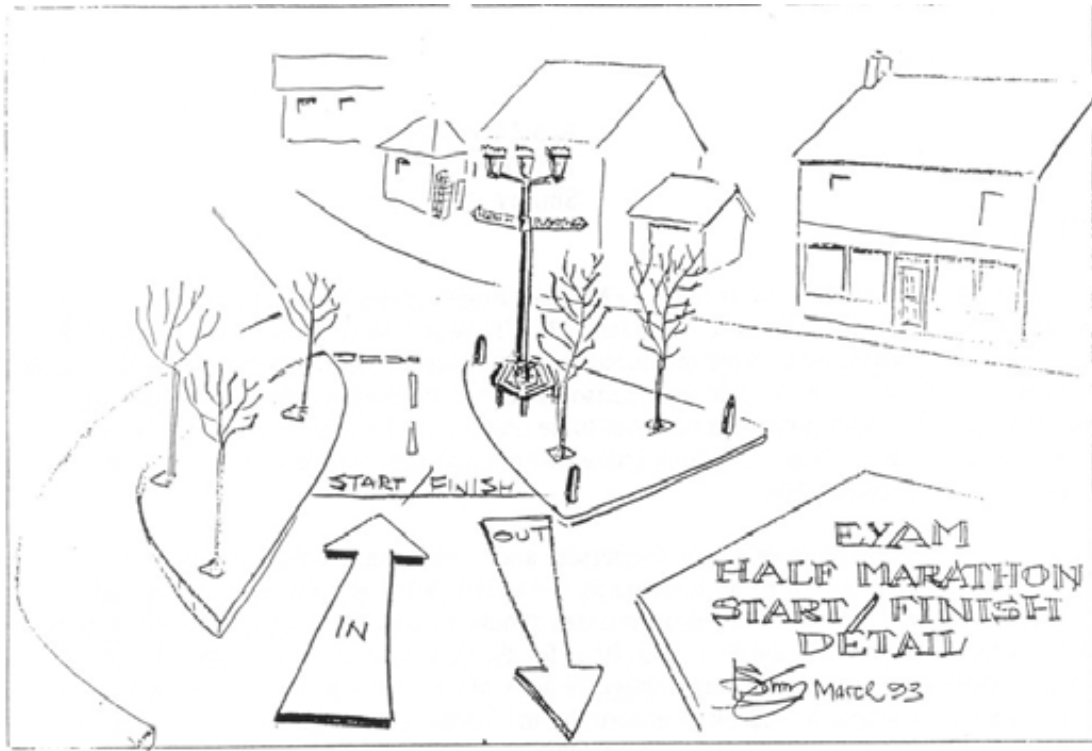
To cover: Albania, Armenia, Austria, Bosnia & Herzegovina, Bulgaria, Byelorussia, Cape Verde, Croatia, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, The Gambia, Georgia, Germany, Ghana, Great Britain, Hungary, Iceland, Ireland, Israel, Kenya, Latvia, Lesotho, Liberia, Liechtenstein, Lithuania, Mozambique, Namibia, Netherlands, Nigeria, Norway, Poland, Russia, Sierra Leone, Slovak Republic, Slovenia, Somalia, South Africa, Sudan, Swaziland, Uganda, Ukraine, Yugoslavia, Zambia, Zimbabwe

**Ted Paulin**, Melbourne Marathon Inc., Olympic Park, Swan Street, Melbourne 3004, Victoria.

To cover: Afghanistan, American Samoa, Australia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, China, Cook Islands, Fiji, French Polynesia, Guam, Hong Kong, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kampuchea, Kazakhstan, Kyrgyzstan, Korea, DPR Korea, Kuwait, Laos, Lebanon, Macao, Malaysia, Maldives, Marshall Islands, Mongolia, Myanmar, Nauru, Nepal, New Zealand, Northern Marianas, Oman, Pakistan, Palestine, Papua New Guinea, Philippines, Qatar, Saudi Arabia, Singapore, Solomon Islands, Sri Lanka, Syria, Chinese Taipei, Tajikistan, Thailand, Tonga, Turkmenistan, UAE, Uzbekistan, Vanuatu, Vietnam, Western Samoa, Yemen

**Peter Riegel**, 3354 Kirkham Road, Columbus, OH 43221.

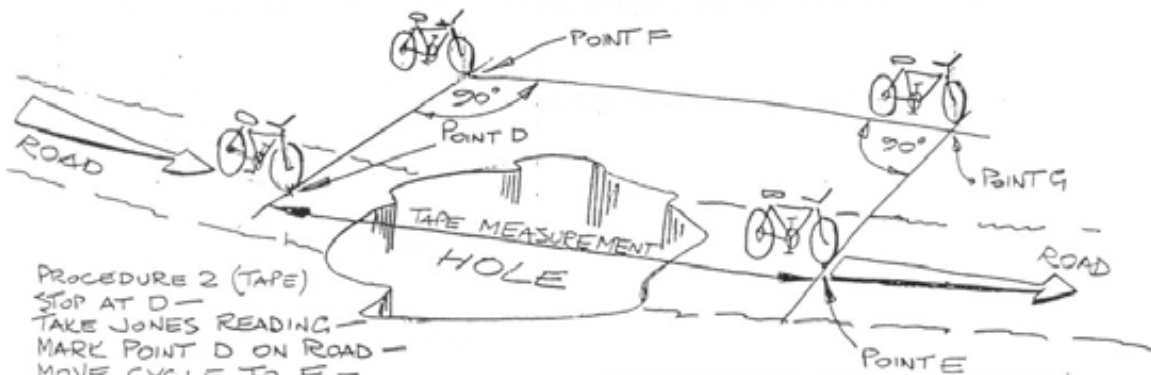
To cover: Anguilla, Antigua, Argentina, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, British Virgin Islands, Canada, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat, Netherland Antilles, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, El Salvador, St Kitts & Nevis, St Lucia, St Vincent, Surinam, Trinidad and Tobago, Turks & Caicos, Uruguay, USA, US Virgin Islands, Venezuela



Some fine artwork from British measurer Les Sims, courtesy of Paul Hodgson.

PROCEDURE 1 (OFFSET METHOD)  
 STOP AT D  
 LOCK FRONT WHEEL  
 CARRY CYCLE TO F  
 MEASURE F TO G BY CYCLE  
 LOCK FRONT WHEEL  
 CARRY CYCLE TO E  
 CONTINUE CYCLE MEASUREMENT

TO ENSURE 90° ANGLES —  
 MEASURE DIAGONALS D TO G & E TO F (BY TAPE)  
 THEY SHOULD BE THE SAME LENGTH



PROCEDURE 2 (TAPE)  
 STOP AT D —  
 TAKE JONES READING —  
 MARK POINT D ON ROAD —  
 MOVE CYCLE TO E —  
 MARK POINT E ON ROAD —  
 MEASURE D TO E WITH TAPE & RECORD —  
 TAKE JONES READING —  
 CONTINUE CYCLE MEASUREMENT —  
 ADD TAPE MEASUREMENT TO TOTAL  
 BEFORE NEXT MARKER POINT

**METHOD OF HOLE TRAVERSE**

Sims Mar 93



Bob Giambalvo  
118 Dawn Dr.  
Shirley, NY 11967

Dear Peter,

I would like to respond to your letter to Michael Franke concerning race courses that are longer than the certified distance (MN Jan '93). Though I have limited experience as a measurer, with about 10 courses measured for certification, I have been a competitive road runner since the mid '70's. The main reason I started measuring a few years ago was because too often race courses turned out to be inaccurate, in spite of claims to the contrary. I'm sure you'll agree that it's disappointing to train and then race hard and never really know how your performance was.

My personal feelings concerning race courses, and I think many other runners would agree, is that the distance should be as accurate as is feasibly possible. The procedures and standards that we use to prevent short courses should be used in an equal manner to prevent long ones. It seems reasonable to add  $:01 \pm$  for the lead runners in a 5k as a S.C.P.F. Use of the larger constant and very tight tangents adds maybe another  $:01 \pm$ . As a competitor I can accept approximately  $:02/5k$  to ensure the minimum distance is met. Adding more distance on top of this should not be acceptable. At the very least, runners should be timed to the legit finish line and allowed (mandated?) to run to a "convenient" finish line. (Problems may occur with order of finish places.)

If I were Bill Rodgers, I would be unhappy that  $:15+$  was added to my record run. That's too much! If we don't allow courses to be short by that amount, then we shouldn't allow them to be that much oversize. Perhaps if no other option existed, runners could be instructed to start their own watches at a "bannered" start line the required distance into the race (eliminates finishing problems). Not letting the runners know would be unfair and irresponsible, and a disservice to all.

Let's shoot for the greatest accuracy possible, plus a S.C.P.F., without going unreasonably oversize.

Thanks for letting me give my opinion on this matter.

SINCERELY,

BOB GIAMBALVO



## USA TRACK & FIELD

Peter S. Riegel  
Chairman, Road Running Technical Council  
3354 Kirkham Road  
Columbus, OH 43221

614-451-5617 (home)  
614-424-4009 (work)  
614-424-5263 (FAX, work)

April 22, 1993

Bob Giambalvo  
118 Dawn Dr.  
Shirley, NY 11967

Dear Bob,

Sorry for the delay in answering your letter. Joan and I were in London for their marathon, and I am just now working my way through the mail pile.

Your letter was a welcome one, because of the obvious thought that went into it. Your points are valid, and I agree with them. Some of my reply to Franke was off the mark, as was my certification of the 1985 Elby's course. I should have issued the certification as 20.1 km instead of the 20 km requested by the measurer.

I do take small issue with the idea that runners are running an extra second in a 5k because of safety factors. If all courses are measured to the same standard, then nobody runs an extra anything. The runners' path is arbitrarily defined, and no runner actually runs it. If extra is added beyond the SCPF, then I would agree that particular course is different from the rest.

The basic question I was attempting to deal with in the Franke letter was whether a certifier should withdraw or cancel the certification if the race director elects to lengthen the course. I said no, and I adhere to that. If the course as defined in the certificate is OK, there is no justification for cancelling the certificate.

We certify courses, not races. We certainly want races to be properly conducted, but cancelling a certificate because the race director does not use it is beyond our area of responsibility.

In a perfect world the race directors would tell all the facts to the runners in the pre-race advertising, but we know this does not always happen. My first marathon (1974) turned out to be about 1.5 miles too long, and I was disappointed with my finish time. After I checked the course run, using topographic maps, and discovered the discrepancy, I wrote to the race director suggesting that it would be a nice thing if he mentioned that the course was oversize in the results. He didn't do this. I think the winner, Carl Hatfield, was more disappointed than I was, since he was shooting for a sub-2:20 on a difficult course, and got 2:27. In 1974, 2:20 was a pretty fast time, and it would have been nice had Carl got more credit for a fine run.

Thanks for writing. Best regards,

A handwritten signature in cursive script, appearing to read 'Peter'.

Road Running Technical Council



Peter S. Riegel  
3354 Kirkham Road  
Columbus, OH 43221

Dear Pete,

This is a report on wind observations at the 1993 Crescent City Classic 10K Road Race in New Orleans, LA on 20 March 1992. As you know, the course is a flat, point-to-point configuration with the start and finish about 7 kilometers apart. The course flows generally southwest and west until it reaches Audubon Park and makes a counterclockwise loop to the finish.

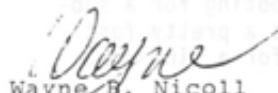
The National Weather Service report at 7AM reported a temperature of 57 degrees F, cloudy skies, wind from the east at 9 to 15 MPH, 90% humidity, and a 50% chance of rain. By race time (9AM) the temperature was 60 degrees F, and cloudy. A strong steady wind was blowing from the east. As the runners were finishing, it began to rain steadily.

I placed red engineer tape streamers on street poles along the course. On race day I rode on the press truck and recorded the movement of the streamers and other flags and banners, using a disposable camera. Some of the streamers were wet and wrapped to the poles, but enough were blowing briskly, clearly showing a strong tailwind favoring the runners. Several photos indicating the strong tailwind are included.

In my opinion, whenever the runners were moving west or southwest, which would be over 70% of the distance, the wind advantage would disqualify any record performances achieved. The Road Running Information Center, USATF, has been notified of these findings.

Despite this rather gloomy report, I would like to commend Mac DeVaughn and the race organization for their willingness to include the wind observations in their race management activity for the past three years. Two of those years the wind provided no advantage to the runners. This is the only major point-to-point road race collecting wind information, thus allowing records to be set at all levels when wind conditions do not provide any significant advantage.

Sincerely,

  
Wayne B. Nicoll  
Vice Chair East, RRTC

Copy: Mac DeVaughn, Neil MacDonald

The Governing Body for Athletics in the United States  
including Track and Field, Long Distance  
Running and Race Walking for  
men and women and boys and girls  
at all age levels.

WAYNE B. NICOLL

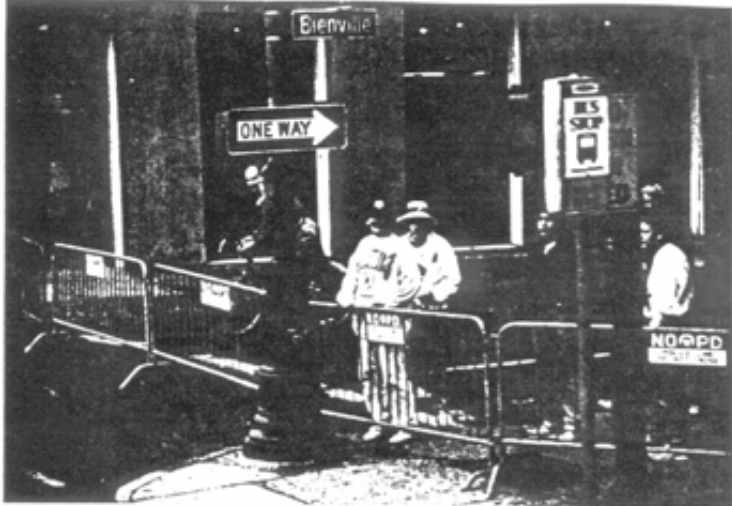
Ragged Mountain Club  
Potter Place, New Hampshire 03265  
(603) 735-5721

23 March 1993

STREAMERS BLOWING  
FROM EAST TO  
WEST

1st  
MILE

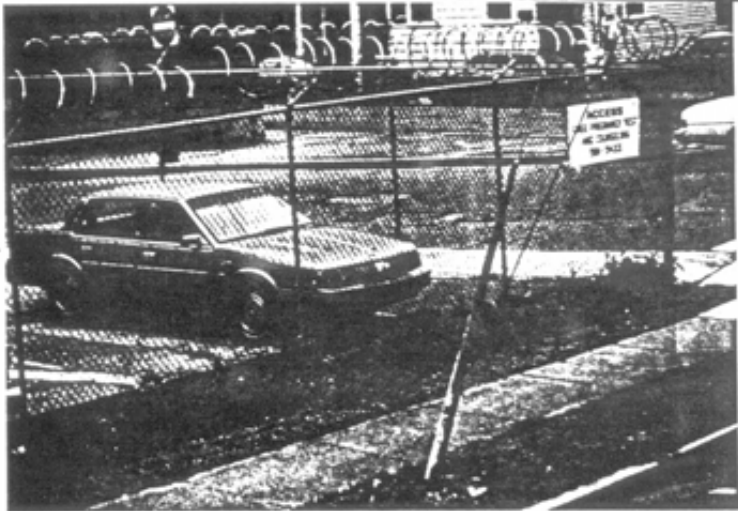
STREAMER  
UNDER "ONE  
WAY" SIGN



ON CAMP

2d  
MILE

STREAMER ON  
604 WIRE IS  
BLOWING STRAIGHT  
DOWN COURSE



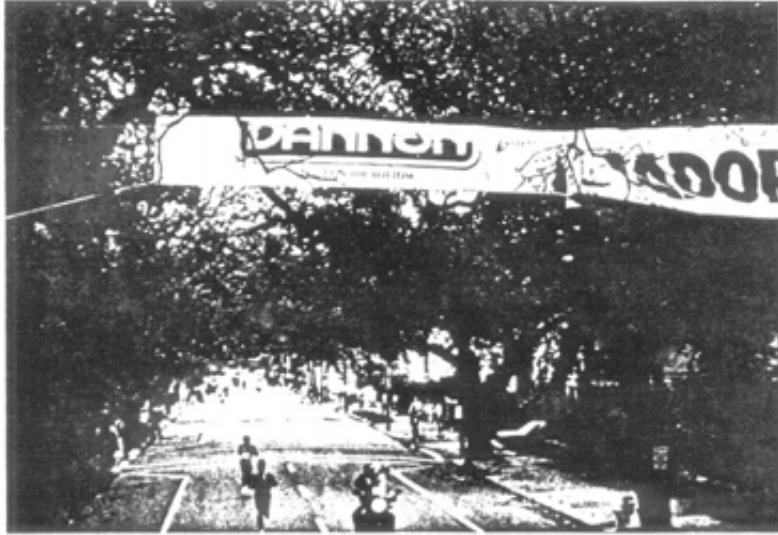
ON PRYTANIA

3d MILE

(JOGGER IS  
FACING EAST)



3d  
MILE



BANNERS IN 3d, 4th, + 5th MILES  
INFLATED OR FLAPPING FROM STRONG  
WIND FROM EAST:

4th MILE



5th MILE



# Overall Winner

## Bob Baumel, By the Numbers by Jane Hawkins

Ask any runner who races more than just a little what the three most important things are that a race must have and you'll hear (1) a course that is certified as accurately measured (2) prompt results and (3) plenty of refreshments. Bob Baumel is one of the few good men who can take care of one of those items. Baumel has the necessary credentials to be a road race course measurer and certifier. He pays attention to detail, likes to play with numbers, and knows how to ride a bike. But it's not quite that simple.

A native New Yorker, Bob Baumel started running in the spring of 1972 while a graduate student in physics at Princeton University. He ran his first race in Canada in '74. Given his quantitative bent, he became curious as to how accurately running distances could be measured. Based on the advertised course length of that race, Baumel checked his car odometer, which turned out to be reading high by about 5 percent. Around 1976, while a postdoctoral research fellow at the University of Western Ontario in London, Ontario, Canada, Baumel began teaching himself course measurement by the calibrated bicycle method following instructions by Ted Corbitt. He learned that people almost invariably overestimate running distances, often by 5 to 10 percent or more.

After learning the calibrated bicycle method, he went back and checked the race course, and it turned out to be slightly shorter than advertised by around 0.2 percent. Still later, when the measurement rules were made stricter with regard to measuring the shortest possible running path, the length of that course had to be revised downward yet again, by about another 0.2 percent.

"Canada was changing over to the metric system during that time," said Baumel. "I became enthusiastic about this simpler, more logical measuring system which has now been adopted, or is well on its way to adoption, everywhere except the U.S. and Liberia. I switched my own running records from miles to kilometers in '75. When I began learning course measurement in '76, I worked entirely in metric units from the outset. And when I later moved back to the U.S., I resolved that I would not go back to that crazy old system of miles, pounds, quarts, Fahrenheit, etc."

A few months after moving to Ponca City in the summer of '81, Baumel met Joe McDaniel, statistics editor of *Oklahoma Runner*. McDaniel told Baumel that Oklahoma needed



Bob Baumel

someone to certify courses that had been measured by the calibrated bicycle method. He officially became an Oklahoma certifier in mid 1982. At that time, only about four other states had their own certifiers, although the number of such regional certifiers was rapidly growing.

Other changes to the certification system took place in the mid '80s. Ken Young, who had established the National Running Data Center during the '70s and also served as keeper of the certified course list, was pushing ahead with plans to establish official road running records (approved at the December '83 TAC Convention). This required tightening of the course measurement rules, including: (1) introduction of a 'short course prevention factor,' (2) stricter emphasis on measuring the 'shortest possible route,' and (3) introduction of post-race 'validation remeasurements' performed by an expert measurer after a national record time has been run.

Baumel was one of the 13 measurers who, in April of '83, participated in measurement of the 1984 Los Angeles Olympic Marathon course. Following that mass measurement, he, Pete Riegel and Bob Letson worked for another seven months figuring out how to analyze the data from that 13-cyclist measurement and establish the final race course. Currently, he is involved in planning the measurement in Atlanta for the '96 Olympic course.

In addition to actual hands-on measuring and certifications, Baumel was a major player in the proceedings from '88-'91 on rules changes concerning record eligibility on courses that may be aided by downhill slopes and/or tailwinds. He helped calculate the effects of slope and wind on performance and participated in discussions of the rules changes at several TAC Conventions. Baumel served on the special committee appointed at the '90 convention to reach a compromise solution.

"According to the resulting compromise," said Baumel, "courses such as the Boston Marathon which are too downhill for genuine records are still eligible for 'best' times, which are also listed in the record book."

"Bob Baumel has advanced the state of the art relating to hills and degree of difficulty in racing," said Pete Riegel, chairman of Road Running Technical Council/USAT&F. "He is uncanny in his ability to analyze measurement data."

Baumel has written a computer program that many measurers and certifiers use for checking the calculations in course measurements. The current certificate issued in USAT&F (formerly TAC) certifications was designed by Baumel.

Baumel continues to run 30-40 km per week and occasionally races. He has had some serious health problems but has not been deterred from running, course measuring, or other activities. He has personally measured about 50 courses for certification, mostly in Oklahoma. And he has certified about 660 courses, the third highest total of all current certifiers.

When you are entered in a race designated as a certified course, you can be sure that your training for that distance has not been in vain. You can be sure that your time at a specific distance is true and that your improvement over a previous time at that same distance is genuine. Bob Baumel is one of the reasons that you can be so sure. Thank him sometime.

*Send in your recommendations for Overall Winner. Qualifications are only that the person has made or continues to make a contribution to running. You may write a profile yourself or ask us to do it. Send a photo if possible.*

If you are interested in a weekend bus trip to a 5 km race near Hot Springs, Arkansas, on July 30, write or call Jane Hawkins at P. O. Box 2008, Tulsa, OK 74101 (918) 581-8306 or (918) 584-6351. The group would stay in the historic Arlington Hotel.

There's more to organising a race than meets the eye. Especially our biggest road race, the Great North Run, which attracts more than 30,000 runners.

Paul Larkins went behind the scenes hoping for a laid-back pre-race weekend. Was he wrong!

At the time it seemed like a good idea. All I needed was to get it past Today's Runner editor Allan Haines and I'd have a weekend swanning around the North East without actually having to run those 13.1 miles from Newcastle to South Shields. Great. And what better place to get the idea past him than on a lunchtime run when he's at his most vulnerable.

"Why not," he said, just as I pick up the pace past the six-mile marker. "A weekend behind the scenes of the Great North Run sounds like a great idea," he agreed, unwittingly - or was it - as he consigned me to the assignment from hell!

My mission was to follow course measurer Paul Hodgson and Great North Run course director Max Coleby around for a few days, armed only with a notebook and, of course, a pair of running shoes - even course directors like to run a bit. Sounds like a soft option doesn't it, but I hadn't bargained on one or two things - like how much organisation is actually required to get 100 or so elite athletes from Newcastle to South Shields. Plus the 30,000 others.

Things started off easy enough. I even got a seat on the train to Durham and Max was right on time to meet me. "Tough day ahead, better get an early night," he warned. "We've got to be at the office for 7.30am."

Ugh. I went to bed. As promised, the glamour started early as I set about photocopying 60 five-page documents outlining the design of the drink stations for those athletes running in the World Championships.

I was to learn early on, before

**1**  
Paul Hodgson (left) and Max Coleby get down to the task of checking the elite start list.



**3**  
It's not all glamour being a course director.



**2**  
"Hello". Another problem for Max to solve. Yes, this was going to be a long day.



**4**  
Bits of lumber and card are beginning to take shape.

# Assignment

my first cup of coffee in fact, that nothing, but nothing is left to chance. Athletes were to be told of every eventuality, including whether their drink was on table No.3 or table No.2. Fair enough.

Next the coaches - the elite are a pampered bunch - had to be told all of this at something called a technical meeting.

For a race that starts 13.1 miles from the finish and runs along one road, there was an awful lot of information at this technical meeting. The Nissan show cars had to line up just so at the start line and the police car had to be positioned at point x ready to pick up TV commentators David Coleman and Brendan Foster at 11am on the dot and whisk them to the finish.

No wonder Paul and Max lived by their schedules.

Next stop, so the schedule said, was to pick up some plastic bins. Why the Great North Run needed half a dozen plastic bins and 80ft of lumber was a mystery to me.

"We'll go for a run before dinner though, I was cheerfully reminded.

Running, yes that's what this is all about. It's hard to remember that when driving up and down the Felling Bypass, checking and rechecking marks against the road, or rooting about underneath Gateshead Stadium for yet more lumps of wood.

Finally, day one ends with a gentle seven miler around the quickly darkening streets of Durham.

"Tough day ahead," Max warns. "Better have an early

night."

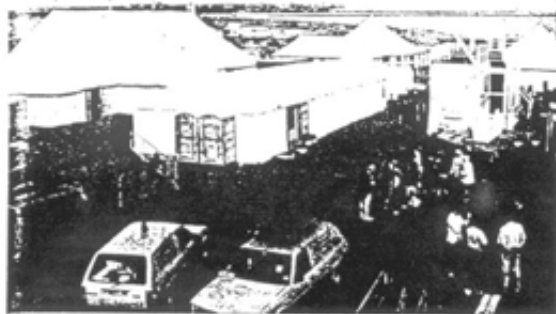
Saturday is race day for the juniors and quickly those bins, lumps of wood and meaningless markers take on major significance.

Mile and kilometre markers appear out of nowhere as we hammer nail after nail to make huge signs.

Next we nip across to a pre-warmed home owner who allows us to fill the bins, and sponge stations are equally quickly created. By 9am, everything is ready to roll and suddenly the bypass outside Gateshead Stadium resembles a Grand Prix racing circuit with advertising billboards, pit stops and distance markers.

Time for a rest I think. No chance.

This is all for the Junior Great North and Junior World



**5**  
The scene is almost set. Only the final touches are needed in the finish area at South Shields.



**7** First over the course were the world championship women. For this contender the support along the final miles was a welcome addition.



**6** Not all the on-course facilities are down to Coleby and his team.



**8**  
It's over. Thousands pour through the finish funnels but for the organisers there's still plenty to be done.

# ent from hell

Championships; the serious stuff has still to be done. Thirty thousand runners are due to make their annual pilgrimage to the coast and, believe me, that takes some organisation.

First on the agenda is a trip to the finish line and a rendezvous with the medical staff.

Flapping in the wind at South Shields, we survey the deserted finish area and the quiet medical tent. The organisers pride themselves on the medical set-up. Nothing is left to chance, including taking out railings on the motorway, so unfortunate runners can be whisked off to field hospitals quickly.

The medical staff have the ultimate book for runners - the start list along with everyone's predicted time. A quick glance through that reveals one or two fairy sto-

ries. I note a few unlikely times colleagues have predicted, ready to confront them on Sunday.

Max then briefs the local army unit about the communications required for race day. If anything was to go wrong, the army could radio the location within seconds. This, I was beginning to think, is one smooth set-up.

And just in case I wasn't impressed with that I was given a tour of the finish line urinals.

I pretend to be impressed. That's the masses taken care of. But, you've guessed it, the elite required several more hours of pampering.

Not only have they got maps of where to put their drinks; not only have their coaches been briefed as to where those drinks will be, but we have to go and personally pick them up.

Still it has its benefits. We chat with the British team and drink a few coffees; then Max has a massage on one of the tables we delivered the day before. This is more like the assignment I had planned.

This time we can't fit in a run. It's getting late and anyway, Max warns, it's an early start tomorrow.

Of course, what else would it be?

Race day raises the panic levels just a bit. Is the hospital ready, where's the army, are the road works at 11 miles finished?

But nothing goes wrong, except that Coleman and Foster get to the finish line without the police car.

Just a tad over an hour later, the first runners arrive at the finish line and are swept expertly

through.

The toughest thing left to do is get back to Newcastle Station - not an easy proposition with 15,000 runners still out on the road. Max organises a police car for me and we weave our way up the side streets.

Incredibly the street cleaners are already out sweeping away the debris that thousands of runners have left behind. Even at 3pm there is hardly any evidence that anybody, let alone such a huge crowd, has run over the Tyne Bridge.

"But that's what you pay for, isn't it," Max says. "People think you can make money from this. I tell you what, I'll give you all the money from entries and you organise it."

No thanks. But where's Allan? He looks like a likely candidate!



2420 Glenwood  
Anchorage, AK 99508  
February 14, 1993

E.T. McBrayer  
7733 Moline  
Houston, TX 77087

Dear Tom,

I'm sorry it has taken so long to respond to your request for further information on those three course certifications we sent you. Two of them I could deal with immediately but one took getting in touch with the race director, which took longer than I expected. By then, the problems were "back-burner" so to speak and a zillion other things had come up. I'm finally beginning to clear off my desk and your reminder note has helped to kick things off with these. Even so, your note came while I was on a three week trip to the east coast and it had to be dug out of the stack of mail itself!

I hope that my responses answer your questions. I do not require split descriptions for certifications unless the split is to be certified (which is rarely done here). Bob Baumel found this to be acceptable and it does make life much easier for most measurers. I do my best to get very good descriptions of start, finish, and turnaround or critical points and I strongly encourage measurers to measure the SPR on unrestricted courses. If they then, for example, have to restrict runners to a particular lane for traffic or other reasons, I suggest that they do that separate from the measurement and certification. Runners here tend to ignore cones and there are never enough course monitors, hence if the SPR is measured, at least no one runs short. It was a first here, but a runner was disqualified in the Silver Salmon Run 10K for violating the coning but most race directors would not have the "guts" to do it except in very blatant cases. However, in one recent case, a course was measured on a two lane road using only one lane because the road permit did not allow the road to be closed. It was coned as stated on the certificate, course monitors were out and racers received clear instructions. The monitors then stood by helplessly as virtually the entire race field ran the SPR using the full road! Fortunately, no records were set on that day and no race director I know would disqualify the entire field. It is for this reason, knowing runners here, that I avoid coning in certifications, even if I know they will run slightly long.

I do apologize for missing the drop, separation, and surface type on the Silver Salmon Run 10K. I'm glad you caught it.

I have reissued the certificate for the Alaska Classic (AK92007-FW) on the new form, as annotations had to be made to the map anyway. I answered your questions on your original note. I assume that the certificates you returned were the originals sent; if so the back side should have shown the start and finish diagrams. These have been added to the back of the current certificate. Concerning restrictions on this course, where coning is shown on the map, in most places (Northern Lights, A Street, and 9th Ave.) it is to restrict runners to

the right traffic lane. Northern Lights and A Street are high traffic arteries and the coning is well respected by runners and enforced by police. 9th Ave. is not such high traffic but runners remain restricted to the right lane until just before the finish. On Maplewood, the coning is for guidance more than anything else, as it follows the SPR and the "s" turn shown is a blind down hill. The critical spot which I had to have clarified was the turn on to 9th Avenue. All other left turns are controlled by lane dividers or straight lines taken off of lane dividers. The story at 9th is now shown on the back of the certificate.

I do wish I could get better maps drawn but I'm not about to start redrawing them. Still, some peoples ideas of maps are astounding. I have about five measurements awaiting better or corrected maps -- some I'm sure won't see the light of day.

I find that though the desire is there, I am not doing a very great job as State Certifier for Alaska. Paperwork is not my idea of a good time and I only got into this because many people after years of trying had been unsuccessful in getting courses certified. We had no idea who to contact and the previous certifier, who lived in Hawaii, was very unsupportive once we did find he was our contact. As a race director, I needed a certification done and once I was successful, with Bob Baumel's and Pete Riegel's help, every one wanted me to do it for them. About the same time, I became the state record-keeper for TACSTATS and now have many megabytes of race data and many drawers of files on hand. It seems that I have to pry the results for nearly every race out of the race directors. Well, I'm burning out and also have many other things I'd like to do with my time. (A second child in 6 weeks). Regardless of my desires, I feel it very important that we have a certifier here in Alaska and will continue to do what I can while I search for a replacement. I feel I have contributed a lot to running here, as only one course was certified in Alaska when I started five years ago and virtually nothing was going to TACSTATS.

Point of clarification; in the January Measurement News (bottom, page 9) it was stated "... that ALL aspects of a measurement are required before race day in order for a course to be certified. This includes a MAP." Am I to interpret this to mean that the map must be complete and final before race day? I have many cases of certification packages coming in literally hours before a race and the map not being clear. If I can ascertain that the measurement is complete, I have generally told the measurer (who is usually the race director too) to go ahead, but the certificate will not be issued until all is complete. Is this wrong? If so, what is a workable solution?

Sincerely,



Frederic Wilson



## USA TRACK & FIELD

Peter S. Riegel  
Chairman, Road Running Technical Council  
3354 Kirkham Road  
Columbus, OH 43221

614-451-5617 (home)  
614-424-4009 (work)  
614-424-5263 (FAX, work)

March 12, 1993

Frederic Wilson - 2420 Glenwood - Anchorage, AK 99508

Dear Ric,

Tom McBrayer forwarded your letter to me with the last batch of courses to Joan. I thought I would drop you a line even though the letter wasn't directed to me.

Let me correct a misapprehension you seem to have. You are doing fine as AK Certifier. Alaska is a big state with few people, and a disproportionate amount of dirt roads, compared to the lower 48. Given the conditions under which you operate, you have been quite successful.

The basic certifier job is simply to be there to process the paperwork promptly, and give advice to measurers. Although some certifiers measure many courses, the system is set up so that anybody at all can do the job, with help from the certifier. You are not required to do more than you are doing. I know what you mean about maps - some people are not too great at them. Like you, I will not redraw a map for anyone, although I sometimes add a note to one to clarify something.

As a parent I can understand that there are other priorities in life, and if you are burning out the only thing to do is to back off from the fire. From a selfish point of view I hope you will stay on as Alaska certifier, because good people are hard to find, but I support your choice whichever way it goes.

To answer the question with which you concluded your letter, regarding maps: The idea is to have everything submitted by race day. Some sort of map must be there, but if it needs work that can be done later. Measurement data only is not enough - some description of the course must exist, even if it is pretty rough. What is the workable solution? I leave that to you. Sticking within the general principles I am sure you can decide each case on its merits. I am shy of rigid rules, because there are too many times we must break them. It's hard to be rigid without hurting the people we are supposed to be helping, so we have to use our best judgment.

I would like to put your letter in the next Measurement News, and will do so unless you tell me not to. I think it's an excellent example of how one certifier copes with the problems.

Best regards,

A handwritten signature in cursive script, appearing to read 'Peter'.

xc: Tom McB

USATF/RRTC VALIDATIONS REPORT

3 April 1993

DATE OF RACE	DATE OF VAL	DIST	VALIDATIONS CONDUCTED		DIFF M/KM	COURSE ID	RACE NAME/COURSE	MEASURER	VALIDATOR
			NDM METERS	MEASURED METERS					
5/16/92	11/28/92	10k	92	2000	2000.2425	0.12 WI 92002 WG	Petrifying Springs	MOWLES	GRASS
4/12/92	12/11/92	10k	92	2000.0	2002.5793	1.29 WI 92001 WG	U of W Parkside	MOWLES	GRASS

Currently pending, not completed :

6/28/91	5k	91	5000	MT 84001 TC	Governors Cup 5k	CASSELLS	BARRETT
10/20/91	HMAR	91	21097.5	CA 84053 CW	Humbolt Redwoods H-Marathon	WILLIAMS	KNIGHT
11/30/91	50k	91	50000.0	WI 83005 TC	Vilas 50k	HINTZ	GRASS
3/21/92	8k	92	8000.0	VA 91006 RT	Shamrock Sportsfest	CORZATT	THURSTON
9/21/91	5M	91	8046.7	IL 87052 WG	Good Times Classic	KRAUSS	WIGHT
	10k	92	2500.0	WA 92007 MR	SFCC/Mugogawa 2500 loop	KINNICK	RENNER
	20k		2500.0	CA 91020 TK	Arrowhead Marsh 2.5k loop	MATHEWS	KNIGHT
	5k	92	5000.0	FL 92022 DL	LaVonne Hottensmith 5k	OST	LOEFFLER
	5k		5000.0	CA 89025 RS	Lake Murray 5k	LETSON	SCARDERA
	15k		15000.0	CA 88073 RS	Inland Empire 15k	HICKEY	SCARDERA
	5k		5000.0	CT 92012 DR	Quinnipiac College R/Kill	SUIDO BROS.	NICOLL

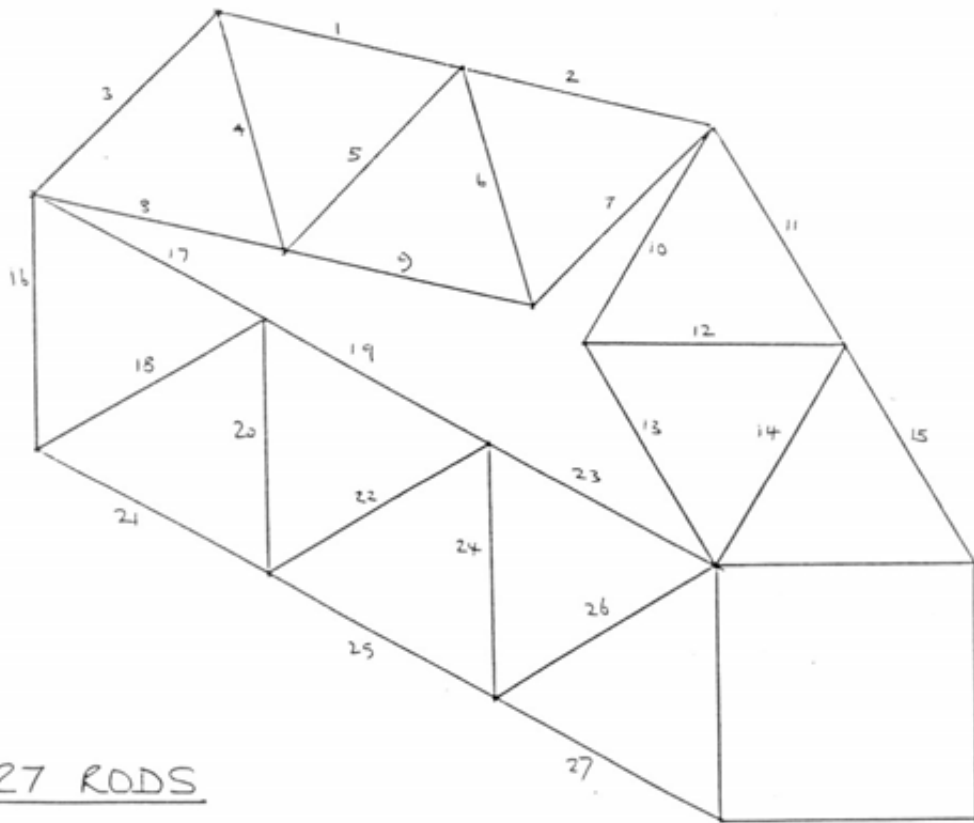
*Handwritten signature: G. A. [unclear]*

"Zeando"  
Swannington  
Norfolk  
NR9 5NW  
ENGLAND  
Tel. (0603) 860244  
27 MARCH '93

Dear Pete,

Herewith an entry for your "Bracing the Square"  
competition. I'm working on an improvement!

Roger Gibbons



### SUM OF SHORTER SPLITS

The Certifier Test recommended the use of sum-of-shorter-splits (SOSS) for the sample of data submitted. This is not a by-the-book procedure. However, in most cases SOSS will give a lower measured value than either single ride. Should it be used all the time? Probably not. Some judgment must be exercised. In the case of the test, SOSS showed that the entire short course prevention factor, plus a bit, was eaten up by compensating errors. The course as laid down was short, with little argument, shown to be so by the measurer's own measurements.

I've not seen very many measurements as bad as this one, but have seen a few that needed added distance, and I asked the measurer to tack it on. When I explained why, it was done with no complaint.

### BRACING THE SQUARE - AN INTERESTING ENTRY

Britain's Roger Gibbons, inspired by the challenge of bracing the square using fewer than 31 rods, sent in an answer using only 27 rods. Will we red-blooded Americans stand idly by while the Jones Counter goes to foreign soil? Can anyone best Roger's effort? Do we need to? Exert your minds - remember, the answer received by December 31, using the lowest number of rods, will win a Jones Counter. Help reduce the trade deficit!

### PETE'S ANSWERS TO PAUL HODGSON'S TEST

- 1) 16002.3 counts per mile
- 2)
  - a) Miscounting the number of full tape lengths laid down.
  - b) Off-line alignment of the tape (zig-zag).
  - c) Linear misplacement of tape graduations and marks made on the road.
  - d) Failure to correct for temperature.
  - e) Improper tension
- 3) Add 69.49 meters
- 4) 49878 counts
- 5) No question 5 provided.
- 6)
  - a) Set back the 10k start 25 meters  
Set back the 15k start 37.5 meters
  - b) Set back the 10k 3 mile mark 184.5 meters from the finish line.
- 7)
  - a) 3504 counts from start to finish  
16110 counts from start to 1 mile
  - b) Begin at the finish. Measure this route: Finish - 4 mile - finish - 2 mile - start - 5 mile - 3 mile. You will have walked 1953 meters.  
Other routes require more walking.