# Measurement News



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Paul Hodgson, former British Coal Mine Surveyor who has measured scores of road race courses in England, Europe, and the Mediterranean area, has recently completed a year of work in an Egyptian coal mining operation. Here is the countryside in which he resided during that time. The tiny figure is Paul, trying to run up the hill.

#### MEASUREMENT NEWS

#69 - January 1995

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#### Join Us in Santa Barbara

We are in the early stages of planning a Road Running Technical Council Seminar to be held this spring or summer in Santa Barbara. Since our featured foreign guest, Norrie Williamson (see Measurement News, November issue), will be busy teaching this spring, July or August are currently favored. We hope to nail down dates by the February On the Roads and March Measurement News. If you have any ideas for seminar topics or activities, give us a call or write us a letter soon. We plan to feature course measuring on Saturday and Sunday and are considering adding one session of finish line topics on Friday. People could come for one or both sessions. The hotel rates are at their peak that time of year but we will try to keep the price down as much as possible. California offers many varied vacation destinations so you may want to consider stretching your visit. We will even organize spouse and children's activities if there is enough interest.

We look forward to hearing from you soon.

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#### COVER PICTURES AND STORIES

Have you ever wondered where the cover pictures and stories come from? About half the time I write to someone and ask them directly for a cover and a story. The other half of the covers come from things sent in by measurers. Measurement News needs pictures and stories. The more we read about each other, the better we are able to appreciate the fact that we are diverse individuals united by a common interest. You may feel reticent about tooting your own horn, but we want you to do it. I'll show you mine if you show me yours!



# USA Track & Field – Road Running Technical Council APPLICATION TO RENEW AN EXPIRED ROAD COURSE CERTIFICATION

Use of this form: USATF road course certifications automatically expire after 10 years, but may be restored to good standing upon application using this form. With this form, you will compare your course against its official RRTC certificate & map to verify that the originally-certified course still exists without alteration and is still being used correctly. (If you don't currently have the course's official certificate/map, you must obtain a copy before starting to fill out this form. Copies of all certificates are available for \$2.00 from RRTC Course Registrar Joan Riegel, 3354 Kirkham Rd, Columbus, OH 43221; phone: 614-451-5617.) The present form may be filled out by the race director, or by a race technical coordinator (i.e., person in charge of setting up the course on race day), or by the original course measurer, if still present.

1.	Original course name	Certification code
2.	Name of race now using course	
3.	Name, address, phone # of current race of	director
4.	Do all streets & roads referenced in the or by the present race? (If not, please expla	fficial course map still exist, and are these all followed faithfully in; e.g., street name change, etc.)
5.	If the course map specifies any <b>restrictio</b> that must be erected to keep runners in a prevent course cutting, etc.) are these bei	ins on the allowable running path (e.g., cones or other barricades selected portion of road, sections requiring special monitoring to ing followed by the present race?
6.	Do all of the "permanent" landmarks refer around points, cone positions, etc.) still ex	enced on the map for locating key points (Start, Finish, Turn- kist? (If not, which landmarks have disappeared?)
7.	Can all key points of the race course (Star precisely? (If you answered NO to question	rt, Finish, Turnaround points, cone positions, etc.) still be located on 6, but YES to this question, please explain.)
В.	possibly have changed the length of the s	er alteration, e.g., due to flood, earthquake, etc.) that could hortest possible route available to runners? If so, please providery. (Be especially aware of construction on curves & turns.)
		s on this form are true and accurate to the best of my knowledge.
-	nature	Date
ILI	e (Race Director, Course Measurer, etc.)	

Please return this completed form, together with copy of the course's official certificate/map, to your regional certifier. If you don't know who your regional certifier is, you may phone RRTC Chairman Pete Riegel (614–451-5617) or the Road Running Information Center (805-683-5868).

#### LAST MONTH'S PUZZLE

This puzzle featured a topographic map showing the location of the Bartlett Road 1000 foot calibration course, certified as OH 94032 PR. I had such a tough time working out the elevations of the ends of the calibration course that I thought it would make a good puzzle. We had three responses, all in the same range, as follows:

		High	Low	
	Bill Glauz	893	868	
	Larry Richardson	893	869	
	Roger Gibbons	890-900	860-870	(more precise would be guessing, Roger
says)				
	Pete Riegel	892	872	(I think I made a small mistake) - I should
have				
				been in the 860's at the low end)

#### MORE PUZZLES

Your Editor seems to have run out of gas on puzzles. Do you have a puzzle which relates in some way to measurement? Do you have a problem which you solved, and are curious to see how others might approach it? Measurement News would like to have your puzzles.

#### EXPIRED COURSES

All 1984 courses will expire at the end of 1994. This does not mean that they are no longer certified, but it does mean that the courses will no longer appear on published lists. RRIC will accept an expired certificate as evidence that the course is certified, if a record is run. The probability that a 10 year old course is still active is very low, and by dropping courses from the listing after ten years we keep too much dead wood from piling up.

Race directors wishing to have an old course relisted should contact their certifier for a copy of a renewal form. You will find one in this issue

1982	20 courses expired
1983	515 courses expired
1984	826 courses expired



#### Paul Hodgson

AIMS/IAAF Course 'tleasurer Associate Planning Surveyor 19. Rooknope Bickleton 'Vasnington

elephone C91-4153379

3rd November 1994

Dear Pete,

At last I have found the time to write to you. I don't know if you are aware of the fact that I had an extension to my contract with International Mining Consultants, and only returned from Egypt at the beginning of October. I was offered a further extension to my contract, but refused it due to the hardships, and mental anguish I have had to endure during the past twelve months.

I have many anecdotes I could tell given the time, it wasn't all trouble and strife, indeed there was some pleasurable and rewarding experiences. It was an opportunity I could not miss, and I have learnt an awful lot. Mainly about people and other cultures, but more importantly about myself.

What really depressed me was to witness the capital expenditure being invested in a mine in the middle of the desert, when British mines are being closed with billions of pounds worth of equipment being submerged under the rising flood water. To make matters worse some of funding is coming from the British Government via the Oversea's Development Administration, the Egyptians (like myself) just can't understand the logic behind it.

The coal seam is comparatively thin (1.30m), and it is of a poor quality, you can imagine daytime temperature are very high and as a result spontaneous combustion of the coal stockpiles is occurring which does not bode well for the future of the project. The recruiting of local manpower has been a major problem. Here in the U.K. we have generations of mining expertise, my father and grandfather worked in the mines, it's an occupation your born into, it runs in the blood. The Sinai Mining Company expect to take a man off the streets of Cairo and turn him into a miner overnight, as a result there has been some needless accidents through pure ignorance. Many of the new recruits have arrived at the mine site and not even bothered to go underground, preferring to take the next camel train back to the Cairo smog, and pick up their begging bowls once again.

Jean was subject to the "Spanish inquisition" from her work colleagues about my situation, so I decided to issue a press release for the works noticeboard, I enclose a slightly amended copy for your amusement and possible inclusion in "M.N.".

I don't know what the future holds for me now!, I wouldn't mind working abroad again but definitely not in a desert environment, and three months spells away from home are far too long. I have applied for many jobs since I returned home, yet despite what the politicians are telling us we're still in recession. But one things certain being unemployed will not stop me from breathing.

One of my major priorities now is to get myself fit again, conditions were not conducive to road running in the Sinai, and I'm quite unfit at the moment. I enclose a few photographs to give you an insight into the conditions I was faced with, on the large photo- that's me trying to run up the hill.

Whilst I've been in Egypt my dear wife has continued my role as North of England Athletic Association, Course Measurement Secretary she done an excellent job and I'm really proud of her. However, I've decided to relinquish my position due to my employment situation.

You will be aware by now that I've got a new computer and printer, I hope you're impressed with my new typeface. I hope I have not depressed you much, and I look forward to receiving your next copy of "M.N."

Kindest regards to Joan.

Yours In Sport

#### A REQUEST FOR HELP

The following letter appeared in Ultrarunning, January-February 1995. Can anyone help?

To the Editors:

I am race director of an ultra run here in Poughkeepsie, New York. Last year it was a 24-hour event; this year it will be a 12-hour event, again put on by the Mid-Hudson Road Runners.

The reason I am writing is in hopes of finding a reader out there who could help me make a program for my laptop computer to help keep track of the ultrarunners' mileage during the race. Thank you very much. I hope to hear from someone.

Larry Phillips 66 Talmadge Street Poughkeepsie, NY 12601 (914) 485-3026

#### Sands Of Time Running Out For British Surveyor

After a total of 295 days working in a hostile desert environment, former British Coal Mine Surveyor and International Course Measurer, Paul Hodgson decided to call it a day. He had just completed the third of his contracts as a Consultant Planning Surveyor, for the Sinai Mining Company, Egypt but could not face another three months living with the Bedouin tribesmen.

"Life in the Sahara has been very difficult, and most people could not comprehend the hardships I have faced during the past year." said Paul as he relaxed in his Rickleton home.

The mine site is some 85 kilometres from the nearest town, and transport is often quite difficult, particularly during sand storms. The area was previously occupied by Israel, and is still a militarised zone patrolled by the United Nations. Daytime temperatures reach 45°, with time the heat becomes bearable, but the mosquitoes, snakes, and the odd visiting scorpion have sent other Consultants packing within a matter of weeks.

Paul found the work very frustrating, as his Egyptian colleagues seemed to lack his commitment and dedication. Jobs would often be left half finished, due to their religious obligation to pray five times a day. He also missed the company of his wife Jean, and son Carl aged 12 years.

When asked to explain the nature of his work in the Land of the Pharoes, Paul light heartily replied.

"The actual duties, responsibilities, and the work in the mine, were very similar to those of my job with British Coal, the main difference being I couldn't get home at night to discuss the day's problems with my wife"

Paul now aims to continue his course measurement duties, and recently he measured the Lindisfarne 10k, situated on the historic Holy Island. A three mile long causeway connects the Island to the shore at low tide, which is situated just off the coast of North East England, very near the Scottish border. A most unusual venue for a road race, but despite the decline in road running in the area, the event still managed to attract some 500 competitors.

In a matter weeks Paul has travelled from the sand dunes of the Sahara and Mount Sinai home of the Ten Commandments, to the shores of Northumberland and the birthplace of English Christianity.



## Minutes – Road Running Technical Council USATF 1994 National Convention — St. Louis, MO

#### 1st Meeting -- Wednesday, November 30, 1994

Attending: Bob Baumel, Dan Brannen, Roger Dann, Charles DesJardins, Norm Green Philip Greenwald, Finn Hansen, Bob Harrison, Basil Honikman, Linda Honikman, Jim Knoedel, Justin Kuo, Ryan Lamppa, Bob Langenbach, Carole Langenbach, AC Linnerud, Jack Moran, Wayne Nicoll, Rick Recker, Joan Riegel, Pete Riegel, Don Shepan, George Tillson, Ken Uecker, Wilson Waigwa, Mike Wickiser, Jay Wight

The meeting was called to order by Pete Riegel at 20:38, and all present introduced themselves. Several officers' reports were given:

#### Vice-Chairman East, Wayne Nicoll

The 1995 Men's Championships for 10 km and 12 km will both be on point-to-point courses—Crescent City and Bay to Breakers—which are not normally eligible for records unless there is evidence showing absence of aiding tailwind. Wayne has performed wind observation at Crescent City several times, and will do it again in 1995. He will also design a procedure for Bay to Breakers. Wayne heiped validate Lynn Jennings' 1993 Bay to Breakers mark after the race by observing videotape, and noting that the numerous balloons indicated absence of wind.

Wayne has adjusted the course of the Disney World marathon to avoid a sewage treatment plant, and he says it is now a better course.

Wayne also commented on preparations for the 1996 Olympic Trials and Olympics courses. However, I will save those remarks for inclusion in the general discussion of that agenda item below.

#### Vice-Chairman West, Tom McBrayer

Unfortunately, an upper respiratory infection prevented Tom from attending the Convention, so there was no VC West report.

#### Validations Chairman, Mike Wickiser

Mike reported that during the past year, remeasurements were conducted for 18 road courses and 5 race-walk courses. Three of these courses "failed" validation, but only one of the records was actually rejected. In the other two cases, the course actually used was longer than certified, and it was judged that runners covered the full distance. (See the validation report elsewhere in this issue of *Measurement News*.)

#### Course Registrar, Joan Riegel

Although suffering from marathon hangover (as race director of Columbus Marathon), Joan stated that about 1200 courses were certified during the past year. She displayed the recently-printed book listing all RRTC-certified courses, current as of 1 Nov 94. The list-keeping process underwent considerable change this year, as Pete and Joan acquired a new computer, and their master list is now a Lotus 1-2-3 database instead of a WordPerfect document. Electronic copies of the complete list are still available in text-file format to anybody who sends blank floppy disks (send to Pete or Joan for DOS format, or Bob Baumel for Mac format).

Joan also noted that according to our ten-year expiration policy, 884 courses certified in 1984 will expire at the end of 1994. Last year, 20 of about 500 expiring courses were renewed. Any course that remains in use and has not been altered may be easily restored to good standing by using the renewal application form reproduced later in this issue of *Measurement News*.

#### Finish Line Chairman & RRIC Liaison, Ryan Lamppa

Ryan was pleased to observe that more races were doing a better job at sending results to the Road Running Information Center. He thanked Pete Riegel and Mike Wickiser for their help in answering queries.

#### RRTC Chairman, Pete Riegel

Pete continued the string of self-congratulations by claiming that we're doing a little better each year (measured, for example, by the number of courses passing validation), and there were no serious problems for us to deal with at this year's Convention. He also remarked that the standard of craftsmanship among measurers is improving, as indicated by the quality of certification maps.

#### Calibration Courses - When to Certify?

This was the first of our formal agenda items. The Course Measurement Procedures booklet makes it optional whether to prepare a map and obtain a certificate for a calibration course (so long as measurement data is furnished for the calibration course). However, Pete Riegel said it's best to certify the cal course if there's any chance that it will be used again—especially by a different measurer.

Wayne Nicoll added a note of caution, reiterating remarks made by Bob Baumel on previous occasions: The endpoint documentation on calibration course maps (e.g., distance from telephone pole) is usually **not** precise enough for re-locating the point after the road has been re-paved. (Percentage error in such re-location tends to be much greater for cal courses than race courses.) In short, if you can't find the nail, don't use the cal course — measure a new one instead.

#### Use of Certification Codes

Every USATF certified course has a (usually unique) code number consisting of the State abbreviation, a 5-digit sequence number, and the certifier's initials. As races often change names, or use courses that were originally certified for other races, Pete urged greater use of the certification codes in order to clearly communicate which course is being used.

#### 1996 Olympic Trials & Olympic Courses

The US Men's Olympic Marathon Trials will take place in Charlotte NC. Wayne NicclI will take part in the initial measurement, and Tom McBrayer will lead a pre-validation team. The Women's Trials will be in Columbia SC. There are more questions in this case, as queries from Sally NicolI have not been answered. Once again, a team of women measurers will probably do a pre-validation. Some people have questioned the need for such a measurement, but we have found that it's a great publicity event.

The Atlanta Race-Walking courses are still in a state of flux. Some courses proposed by ACOG (Atlanta Committee for the Olympic Games) had unacceptably large elevation changes. Wayne Niccil helped design new courses (1500 m loop for women, 2000 m loop for men), but athletes didn't like them, so it's back to the drawing board.

Little information is available regarding the Olympic Marathon course. High-level concern apparently exists regarding the hilliness, as well as Atlanta's heat and humidity. We don't know when the course will be decided. Consequently, we don't know whether there will be time for an RRTC group measurement.

#### Next Measurement Seminar

Much praise was lavished on the International Measurement Seminar held this past May in Phoenix. Now you'll have another chance to attend one of these seminars, as Linda and Basil Honikman volunteered to host one in the Santa Barbara area. Stay tuned for more information on this exciting upcoming event.

#### Tracks with Removable Curbs

Many of the newer all-weather tracks have a removable curb that is removed during the off-season. Nevertheless, people sometimes hold events (especially LDR ultra runs) on such tracks during this period while the curb is not present. Pete Riegel noted that this can pose a problem, as it may change the official measurement of the track distance.

On a standard track with raised inner border, distance is calculated on a path 30 cm from that border. On indoor tracks without a raised border, the official path for distance calculation is only 20 cm from the line marking the inside edge. What about tracks with removable curbs? When the curb is missing, distances should, in principle, be calculated as on an uncurbed track, i.e., 20 cm from the inner edge.

What does this mean quantitatively? Suppose that the official measurement with curb present (at 30 cm from this curb) is 400 m. After removing the curb, the lap distance (at 20 cm from inside edge) is only 399.37 m — an instant reduction of 0.16%.

To avoid this problem, people holding events on such tracks sometimes set out bricks in place of the missing curb, to insure that distance calculations are the same as if the curb were present. This does, however, require considerable effort.

Basil Honikman stated that for LDR events, this isn't really necessary; it is enough simply to **cone** the inside edge of the track. [Personally, I find the rules ambiguous. Rule 183.10(b) allows track records at distances greater than 10,000 m when the inside of the

track is marked only by a white line and cones or flags complying with Rule 62.3(b). The latter rule requires cones or flags on uncurbed indoor tracks—where the measurement must be calculated at 20 cm according to Rule 62.2. The rules never say that coning the inside edge of an uncurbed track allows the distance to be calculated at 30 cm for any sort of event.]

Bob Langenbach said he knows of a curbed track that also sports a painted line 10 cm outward from the curb. Thus, the officially assumed running path, 30 cm from the curb, is also 20 cm from this painted line. If this track's curb were removed, the distance would be unchanged when interpreted by the *uncurbed* track rule using this painted line. (In the case cited by Bob, however, the curb is a permanent, *non*-removable one!)

#### Curious Adjustment

Dan Brannen recalled a 60 km course he certified several years ago (NY-90001-DB) which was ingeniously adjusted to 50 km by a race director using only points and distances stated on the original certificate. This led to discussion in the Records Committee because, technically, the 50 km course had not specifically been certified. Here is the geometry:

The 60 km course used a closed loop of 6,4002 km (certified lap distance stated on certificate). Starting from Start/Finish "S/F," the race proceeded part-way around the loop 1.1991 km to turnaround "B," and then returned to S/F. Then it continued for 9 full laps, so the total distance was 2 x 1.1991 + 9 x 6,4002 = 60,0000 km.

To shorten this course to 50 km, the race director calculated that if runners start at point B and run the *long* way around the loop to S/F (a distance of 6.4002 – 1.1991 = 5.2011 km), and then continue another 7 full laps, the total distance is 50.0025 km, which is the desired race distance with just 2.5 meters extra!

The race director asked Dan if this adjustment is legitimate. Dan said it sounded fine, but then forgot about it. Subsequently, a record was set on the adjusted course. Fortunately, Dan was present at the Records Committee and explained the situation so the record could be accepted. Of course, no such explanation would have been needed if Dan had written a certificate for the adjusted 50 km course prior to the race.

[Note: I stated the lap distance as 6.4002 km. Actually, Dan had written it in archaic Anglo-Saxon units. If Dan had been thinking in metric, surely he would have certified the loop as an even 6.4 km, dropping the insignificant 0.0002 km (= 20 cm) which is way below measurement uncertainty. Then he would have set point "B" at an even 1.2 km from S/F. And then, the adjusted 60 km course would calculate to exactly 50 km!]

#### How to become a Measurer

Wilson Waigwa asked what procedures are required to become a course measurer. Sensing the recruitment of a new measurer to our ranks, Pete Riegel gleefully explained that all Wilson needs to do is obtain a copy of the Course Measurement Procedures booklet (available for \$4.00 from the USATF office), then start measuring and send applications to his state certifier.

#### Course Cutting

Based on the discussion of course cutting at last year's RRTC meeting, George Tillson asked whether it would be useful to include a statement on course maps saying that runners will disqualified if they cut corners using sidewalks, parking lots, etc. The consensus was that such a statement is probably excessive because American runners generally know that the race course is in the road ("It's a road race—not a front lawn race"). European runners are more aggressive, but are learning. Moreover, we wouldn't want a legalistic statement about course cutting to crowd out more useful information on the map (such as split locations).

#### Course accuracy outside USA

Pete Riegel asserted that, based on his contacts with foreign measurers, he knows of five countries where road racing courses are generally as accurate as US courses. These five are: Great Britain, France, Germany, Poland, and South Africa. (An article by South African measurer Norrie Williamson describing that country's course certification system appeared in Nov '94 Measurement News.)

Audience members then asked about the status of courses in still other countries (e.g., the Rotterdam marathon in Netherlands). Pete replied that we can be confident of any course that has complied with AIMS/IAAF certification/validation standards (and the Rotterdam marathon has indeed met those standards). However, not every course in a given country meets these standards, and not every AIMS race has actually followed the full AIMS/IAAF course measurement procedure.

In response to a query about Canadian courses, Bob Baumel observed that we know some excellent Canadian measurers such as Bernie Conway (who attended our 1990 seminar and has been granted USATF certifier status), Dave Yaeger (who attended our 1994 Phoenix seminar), and John Craig who runs the certification program in Ontario. However, the above all live in Ontario. In Canada as a whole, the situation may be rather spotty because individual Provincial track & field branches are allowed to issue their own certifications. There does not seem to be a single, *unified*, national course certification system in Canada.

#### Las Vegas marathon - Still Downhill

The latest course certified for the Las Vegas marathon (NV-93008-BC) appears in our course list with net *climb* of 0.7 m/km, although earlier versions (such as NV-92001-BC and NV-91001-BC) were strongly *downhill* courses with net *drop* 6.4 m/km. Pete Riegel reported that, according to Bill Callanan, the most recent listing is in error. The current Las Vegas marathon course is *still* strongly downhill, just like the earlier versions.

The meeting was adjourned at 21:58

#### 2nd Meeting -- Thursday, December 1, 1994

Attending: Bob Baumel, Norm Brand, Roger Dann, Sharon Good, Norm Green, Ari Guttmann, Finn Hansen, Bob Harrison, Basil Honikman, Linda Honikman, Carol Kuo, Justin Kuo, Ryan Lamppa, Bob Langenbach, Carole Langenbach, AC Linnerud, Sally Nicoll, Wayne Nicoll, Rick Recker, Joan Riegel, Pete Riegel, Bruce Robinson, Don Shepan, James Skelley, George Tillson, Mike Wickiser, Jay Wight

The meeting was called to order at 20:10. The only major item on the agenda was to announce the winners of the measuring contest.

#### RRTC Measuring Contest

This was our 8th annual measuring contest at a TAC or USATF Convention. This year's contest course, designed by veteran St. Louis-area measurer Tom Eckelman, was an unusually scenic one, looping around the famous Gateway Arch (which was just across the street from the Convention hotel). Unfortunately, Tom himself failed to show up at either the Wednesday or Thursday meeting, leaving some participants unsatisfied because it was unclear which of two possible sidewalk joints defined the northern end of the 50 m calibration course. [Nevertheless, this reporter is certain that he chose the correct pavement crack!]

In any case, an official correct answer was declared, and those with estimates closest to this answer received valuable prizes. Third-place winner Don Shepan received a St. Louis coffee mug. Dave Gwyn took 2nd place and was given a 24-karat gold-finish "Gateway to the West." And grand-prize winner Carol Kuo received a quality piece of artwork (picture of St. Louis). Carol was a repeat prize-winner, having previously won 2nd place in 1991 (New Orleans).

Eye-in-the-sky Norm Brand did his usual trick of estimating the distance by viewing the course from an elevated perch (a high floor of the Convention hotel), but was upstaged by Phil Stewart, who estimated it entirely by scaling from the (not-to-scale) furnished map of the contest course. Surprisingly, nobody surveyed the course from the top of the Gateway Arch itself, perhaps because the windows at the top of the arch did not permit an unobstructed view of the whole course. Pete Riegel was forced to disqualify himself because Tom Eckelman had sent him the answer. (Pete tried valiantly not to look, but couldn't help catching a glimpse of the number.)

#### Plug for Metric Splits

Bob Baumel cited his article on pacing the Tulsa Run in Nov '94 Measurement News. That article had been prompted by the race's change to an all-metric split format. This year, the 15 km Tulsa Run course was marked entirely in kilometers (no mile splits).

This change by the Tulsa Run was not made in isolation. In recent years, nearly all of the 5, 8, 10, 12 and 15 km races in Oklahoma have adopted metric splits. Local runners have become accustomed to kilometer pacing, and learned that it's simpler and more logical. (Thus, here in the heart of conservative middle America, we have one of the most progressive areas regarding this aspect of road racing.)

Nevertheless the Tulsa Run, which is Oklahoma's biggest race (one of the top 100 in the country), had lagged behind other area races. This year it took the metric plunge. This was appreciated by the local runners as well as International runners. Naturally, there was some grumbling, but reaction was generally positive, and the metric splits are probably here to stay.

[By the way, copies of Bob's Tulsa Run Pacing article were distributed to many of the runners at the runner's expo prior to the race. Many of them said they found it helpful.]

The move to metric splits has been slower for some distances (e.g., the marathon = 42.195 km). Most marathons in the US are marked at every mile and sometimes every 5th kilometer. However, Bob cited the Cherokee Strip marathon in Ponca City OK, which is marked the other way around: at every kilometer and only every 5th mile! This race has now been held twice, with the course marked this way, and runners accepted it well.

George Tillson supported the move to metric splits, pointing out that he often races in Canada where courses are marked in kilometers, and he finds it easier to calculate his pace that way.

The meeting was adjourned at 20:30.

Minutes prepared by Bob Baumel, RRTC Secretary AM AMBRIDA BE HE GERBROED

NATIONAL GOVERNING BODY FOR TRACK AND FIELD, LONG DISTANCE RUNNING AND RACE WALKING



#### WAYNE B. NICOLL

Ragged Mountain Club Potter Place, New Hampshire 03216 (603) 735-5721

#### 1994 Annual Report - Vice Chairman East RRTC

The following is a summary of activities of the Vice Chairman East for calendar year 1994.

The resignation of AC Linnerud as the course certifier for North Carolina was accepted. AC has since become an independent measurer. I am currently serving as the temporary certifier until a new candidate for the job is selected. All other certifier positions in the East remained stable. I am continuing to serve as certifier for NH, VT, ME, and DE.

Serving on the Men's LDR Championships Sub-committee Liaison Team, I traveled to National LDR Championships at Jacksonville, FL, New Haven, CT, and Kingsport, TN. Duties included serving as Referee or on Jury of Appeal, course pre-validator, and scoring inspector. Both the Jacksonville and the New Haven courses had changes due to construction that required either re-measurement or minor confirmation of the changes. I performed similar duties at the Women's National Championship 5K in Albany, NY.

At the Crescent City Classic 10K in New Orleans I conducted wind observations for the fourth year. The '94 observations supported a pending 10K World Record for William Kigei on a point to point course that would have otherwise been records ineligible.

In February and September I traveled to Atlanta and worked on two racewalk loops for the Pan Am Cup walking events held on September 24. It was planned the loops would eventually be tied to the Olympic stadium when the stadium is completed. In February several options were presented and extensive measuring was done. In September Woody Cornwell, the Georgia certifier, and I completed the design and measurements of two loops. Both loops had a gradual climb and at one point a rather steep drop. As we anticipated, (and as you have probably read) the courses were not well accepted by the walkers and the Atlanta Committee for the Olympic Games (ACOG) is now considering other course options.

On August 6 I attended the '94 New England Race Directors Conference and made a presentation on the measurement and certification program.

In mid August I accepted a request from the measurer of the Charlotte Marathon to assist him with the course measurements. The course is well designed and is worthy of the '95 Men's Marathon Championships and the '96 Men's Marathon Olympic Trials. I am confident the RRTC team that validates the Charlotte course will be pleased with the course.

In late August I returned to Orlando and led a 3 person team on a two night measurement of the '95 Disney World Marathon course. Several changes have occurred since the measurement and a new certificate will soon be issued.

Serving as a racewalk official and competing as a masters racewalker, I have observed that several racewalk events have had course trouble largely stemming from the measurer's lack of knowledge of proper design requirements for championship level events. Several pending records were lost due to failed validations, and others have had race day course problems. One national championship course was rejected by national racewalk officials who moved the event to a track! Certifiers and measurers are encouraged to seek my advice on the seemingly simple and yet often complex and time consuming problems of racewalk course design and measurement.

In 1994 approximately 450 completed certificates were transmitted to this office for review prior to sending them to the Course Registrar for inclusion on the national certified course list. Several certifiers have been preparing and issuing certificates to race directors but have stockpiled and forwarded the certificates to me in large quantities at one time. This practice is skewing statistics for the year when the certificates do not make the deadline for publication of the new course book.

In addition, there have been annoying and confusing situations when a record is set on a course where the transmission of the certificate has been delayed. The USATF Road Running Information Center (RRIC) will often check with the Chairman or the Vice Chairs to confirm the course is certified. If we do not have the certificate we will not support a possible validation of the record. In a recent case, a race requested one of our certifiers measure a racewalk loop for them. He did the work, issued a certificate to the race, but did not make a timely submission to the Vice Chairman. The certificate was used by the race director in a submission of a racewalk championship bid form to the Racewalk Championship Site Selection Subcommittee, of which my wife is a member. Here we had a copy of the race director's certificate, but I had not yet received a copy from the certifier.

Finally, this practice is most annoying to me when I see no evidence of certification work for weeks and then suddenly I am hit with an excessive number of late certificates to process. I received 55 certificates from three certifiers in three days! Those certifiers concerned must start sending in certificates in a timely manner.

Respectfully submitted

Wayre B. Nicoll Vice Chair, East

RRTC

#### USA Track and Field Road Running Technical Council

E. T. (Tom) McBrayer Vice Chairman West 4021 Montrose Blvd Houston, Texas 77006-4956 (713) 523-5679



November 30, 1994

Peter Riegel 3354 Kirkham Road Columbus Ohio 43221

#### ANNUAL REPORT OF VICE-CHAIRMAN WEST

- Don Shepan was appointed certifier for New Mexico. One of Don's first assignments was the measurement and certification of a 15 km that starts in Texas, loops into Old Mexico, and finishes in Texas.
- The Phoenix measurement seminar was successful by any standard. A major contributor to that success was Felix Cichocki (AZ), our man on the scene.
- Planning is underway for the pre-validation of the Men's Olympic Marathon Trials course. The Charlotte Observer Marathon scheduled for February 1996 has been awarded the Trials. Target date for pre-validation is late summer or early fall of 1995.
- This report would be incomplete without acknowledging the accomplishment of Finn Hansen (UT), who on September 13, 1994 measured the Alta Peruvian Lodge 8k (UT94006FH). It starts at 2658 meters altitude and finishes at 2122 meters. That's a drop of 67 m/km and a seperation of 94.4%.
   Remember, Finn did not design the course; he just measured it!



#### RRTC VALIDATIONS

#### 1994 ACTIVITY REPORT 11/30/94

DATE OF RACE	OF VAL	EVENT	DIST	NOM METERS	MEASURED METERS	DIFF M/KM	COURSE I	0	RACE NAME/COURSE	MEASURER	VALIDATOR
10/31/93 15/02/93 12/13/93 12/13/93 12/13/93 10/16/94 11/23/91 10/10/94 10/03/92 10/04/93 10/04/93 10/18/92	11/20/93 2/22/94 07/06/94 08/23/94 10/08/94 10/07/94 10/22/94 10/25/94 10/15/94 02/13/94 02/13/94 10/08/94 10/08/94 08/12/94	LDR R/W LDR LDR LDR LDR LDR LDR LDR LDR LDR LDR	HMAR 25k 20k 50m 05K 05K 05K 05K 10m 100k 1m 100k 1m 1000m 25k 2500m 1000m 24K 25k	21097.50 2500.00 2000.00 20116.80 5000.00 5000.00 5000.00 16093.44 10000.00 2500.00 2500.00 1609.34 2000.00 1609.34	25039.01 16114.06 99951.53 1614.73 5008.16 2504.78 1610.28 2001.23 5003.42	0.78 0.99 0.07 0.85 0.16 -0.59 1.56 1.28 -0.48 3.35 1.63 1.91 0.58 0.62 0.68	CA 84053 GA 89001 NC 88028 AL 90024 BAH89001 BAH94003 CA 88067 DC 93003 CA 93003 CA 91009 MN 90007 NY 92005 NY 94017 TX 89053 MN 90007	UN ACL JD DL RN RS JS CW CW RR WG DR AM ETM	Humbolt Redwoods N-Maratho Piedmont Pk Restricted Lot Southeastern Masters Champ B.T.C. 50 Miler Grand Bahamas 5000 '94 Grand Bahamas 5000 '94 Downtown Providence 5k Mission Bay 25k T-Com Cherry Blossom '94 Jed Smith 100k Gibson Ranch Classic Twin Cities 5k U. W. Parkside Sri Chirmoy Ultimate Ultra Central Park 2k Race Walk Race for the Cure Fan's 24hr Endurance	PGROSKO SLINNERUDE MELANSON LOEFFLER MARD NELSON LETSON SISSALA SCOTT SCOTT RECKER GRASS BRANNEN	KNIGHT NICOLL WICKISER HARRISON WICKISER LOEFFLER RIEGEL SCARDERA THURSTON BRANNEN LINNERUDE WIGHT THURSTON THURSTON BEACH LINNERUDE
	y pending :						NM 93009		North Americal Masters RW	nıv (30)	CICHOCKI
9/5/93 8/ /94 04/09/94		R/W R/W R/W LDR	15k 10k 5K 50M				OR 93004 MS 93005 PA 94005	LB RH	USATF 10k Race Walk Picayune Fall Class Sk RW North Park 50 Mile	ZEMPER	BARRETT
04/09/94		LDR	50k				PA 94004		North Park 50 K	COURTNEY	
COURSES	REVIEWED				9						
02/26/94 10/01/92 06/28/92 12/05/92 09/19/93 01/16/93 9/12/93 1994 05/08/93 03/20/93 04/16/94 10/24/93		LDR LDR LDR LDR LDR LDR LDR LDR LDR LDR	15k 5k 15k 5k HMAR 50M 8k 25K 25K 25k 8k 10k MAR 10M				FL 92001 NY 92026 OR 93002 GA 85032 PA 86002 TX 84001 VA 93019 WA 86010 MI 93008 VA 92008 LA 85014 OP 93093 MI 89010	AM PC WN UN OM RT TD SH RT PR	Gasparilla 15km '94 Freihefers/Women -Syracuse Cascade Run Off Chieftan's 5km Phil. Dist. Classic '93 Jackson Five-0 '93 Jackson Fidelity Womens Lilac Bloomsday '94 Old Kent Riverbank '93 Shamrock Sportsrfest '93 Cresent City 10km '94 Columbus Marathon '93 Bobby Crim 10 Mile '94	PETERS NICOLL BERNHARDT MILLET THURSTON RENNER DEWEY	LOEFFLER NICOLL * KNIGHT * ** BRIEGEL * BRANNEN * ** BAUMEL * THURSTON NICOLL ** NICOLL ** RIEGEL *

\* -- previously re-measured for validation

\*\* -- accepted on measurer's credentials

\*\*\* -- previously re-measured, current course varies slightly

# TAKE A WALK WIN VALUABLE PRIZES

Enter the 8th Annual RRTC Measurement Contest!

Here is a map of the Arch Grounds, with a 50 meter calibration course, and a measured walking course on the Grounds. The Arch Grounds are just across Memorial Drive from the Adam's Mark Hotel Convention Headquarters.

The calibration course is laid out on the sidewalk parallel to Memorial Drive. A spray-painted green mark lies on the arch side of the sidewalk, 50 meters from the sidewalk joint at the north walkway to the arch. Calibrate your pace and use it to measure the course.

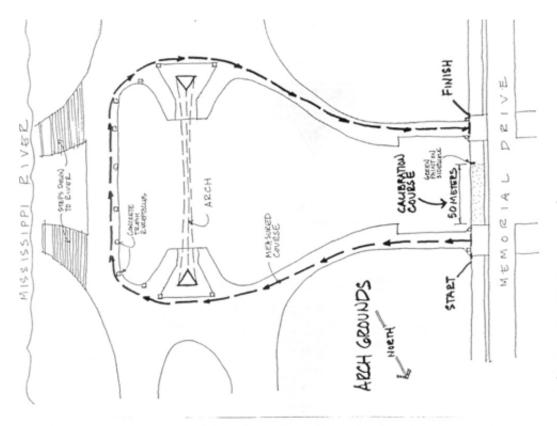
The contest course starts at the sidewalk joint shown on the north walk and finishes at the corresponding joint on the south walkway. The path is the shortest distance using trash receptacles as the edge around the arch, and was measured by Tom Eckelman, ace St. Louis measurer.

Tear off the coupon below, and place it in the entry box.

Name

Estimated length of course (meters)

The three best estimates of the length of the course will be awarded prizes at the meeting of the Road Running Technical Council on Thursday night, as the first agenda item. If duplicate entries are received, only one will be selected at random as your official entry.



USATF - Estimate The Distance Course Stiwuis, Missouri

### 1994 RRTC Measurement - by - Pacing Contest USATF Convention - St Louis, MO

Official Dista	nce 658.	8 meters
----------------	----------	----------

	Estimated Meters	Meters Error	Percent Error	Place
Corol Kina	661.06	2.26	0.34	1
Carol Kuo	662.94	4.14	0.63	2
Dave Gwyn			-0.82	3
Don Shepan	653.40	-5.40	-0.83	4
Bob Harrison	653.31	-5.49		5
Justin Kuo	651.62	-7.18	-1.09	
Wayne Armbrust	666.40	7.60	1.15	6
Bob Baumel	651.01	-7.79	-1.18	7
Wayne Nicoll	650.49	-8.31	-1.26	8
Finn Hansen	672.32	13.52	2.05	9
Basil Honikman	675.42	16.62	2.52	10
Bob Boal	676.90	18.10	2.75	11
Sharon Good	680.00	21.20	3.22	12
Carole Langenbach	686.29	27.49	4.17	13
George Tillson	690.35	31.55	4.79	14
Jim Skelly	621.60	-37.20	-5.65	15
Bob Langenbach	698.32	39.52	6.00	16
Mike Wickiser	701.93	43.13	6.55	17
George Vernosky	705.45	46.65	7.08	18
Linda Honikman	725.00	66.20	10.05	19
Bruce Robinson	730.00	71.20	10.81	20
Norm Brand	578.20	-80.60	-12.23	21
Phil Stewart	747.40	88.60	13.45	22
Sal Corrallo	550.00	-108.80	-16.51	23
Mel Lemon	1810.00	1151.20	174.74	24
Pete Riegel (Validation)	652.29	-6.51	-0.99	n/a

(Pete had previously seen the answer, forgot it, and lost it. A call to Tom Eckelman saved the day. Pete knew nobody would believe he had forgotten the answer, thus performed only as a "validator."

Norm Brand practiced his usual eye-in-the-sky technique, achieving greater success than in past years, but his simple technique was surpassed by Phil Stewart, who avoided the inconvenience of a trip to a window by eyeballing only the sketch of the contest area.

George Tillson produced two laths, each 18 inches long, and announced his intention to tie them to his feet and heel-and-toe the entire distance, but the walking, with sticks and ropes attached to his feet, was more than he cared for, so he produced a pacing estimate like everyone else.

Winners Kuo, Gwyn and Shepan each received appropriate souvenirs of St. Louis in celebration of their demonstrated excellence at this demanding art.

#### THE CALIBRATION COURSE

Many contestants were in some doubt as to which sidewalk joint was the correct one to use for the north end of the calibration course. The south end was easy, as it had a green paint mark. Tom Eckelman confirmed what the majority of contestants thought - the line at the immediate south edge of the trash receptacle was the proper one to use. Don Shepan, Basil Honikman, and Pete Riegel all submitted dual estimates depending on which joint was correct. Read on - there's more!

#### CONSOLATION PACING CONTEST

Each person used a calibration course, but which one they used is unknown. We have only their raw answers. This leads to three alternate possibilities for what their correct answer would have been if they had known for sure which sidewalk crack to use. Pete Riegel heel-and-toed the distance between the two cracks, obtaining 10.5 "shoes." This distance, later replicated in his office and measured, turned out to be 10 feet 1 inch, or 3.073 meters. Calculations below show how things might have turned out. Each contestant is gived credit for the best estimate that he or she would have gotten.

1994 Official Distance Calibration Course Length Calibration course offset		meters meters meters	High factor Low factor		1.06147 0.93853	
	Official	Adjusted	Adjusted	Minimum	Minimum	
	Estimated	High	Low	Absolute	Percent	Adjusted
	Meters	Estimate	Estimate	Error	Error	Place
Mike Wickiser	701.93	745.08	658.78	0.02	0.002	1
Jim Skelly	621.60	659.81	583.39	1.01	0.153	2
Carol Kuo	661.06	701.69	620.43	2.26	0.343	3
George Vernosky	705.45	748.81	662.09	3.29	0.499	4
Bob Langenbach	698.32	741.24	655.40	3.40	0.517	5
Dave Gwyn	662.94	703.69	622.19	4.14	0.628	6
Don Shepan	653.40	709.70	613.24	5.40	0.820	7
Bob Harrison	653.31	693.47	613.15	5.49	0.833	8
Pete Riegel	652.29	696.89	612.20	6.51	0.988	9
Justin Kuo	651.62	691.67	611.57	7.18	1.090	10
Wayne Armbrust	666.40	707.36	625.44	7.60	1.154	11
Bob Baumel	651.01	691.03	610.99	7.79	1.182	12
Wayne Nicoll	650.49	690.47	610.51	8.31	1.261	13
George Tillson	690.35	732.78	647.92	10.88	1.652	14
Finn Hansen	672.32	713.65	630.99	13.52	2.052	15
Carole Langenbach	686.29	728.47	644.11	14.69	2.231	16
Basil Honikman	675.42	724.25	633.90	16.62	2.523	17
Bob Boal	676.90	718.51	635.29	18.10	2.747	18
Sharon Good	680.00	721.80	638.20	20.60	3.127	19
Linda Honikman	725.00	769.56	680.44	21.64	3.284	20
Bruce Robinson	730.00	774.87	685.13	26.33	3.996	21
Phil Stewart	747.40	793.34	701.46	42.66	6.475	22
Norm Brand	578.20	613.74	542.66	45.06	6.840	23
Sal Corrallo	550.00	583.81	516.19	74.99	11.383	24
Mel Lemon	1810.00	1921.26	1698.74	1039.94	157.854	25

Values shown in the "Official Estimated Meters" column are those submitted by contestants. All other values are calculated using the calibration course offset, except for those shown in bold type. Those values were submitted by the contestants as alternative estimates.

#### PERCENT ERROR RECORDED IN RRTC PACING CONTESTS

		1987	1988	1989	1990	1991	1992	1993	1994
Wayne	Armbrust		1	140	1				1.15
Bob	Baumel	0.07		-3.03	-0.91	2.63	-0.72	-1.03	-1.18
Marcia	Baumel	0.02		0.00	0.01	4.37	0.72	1.00	1
Andy	Beach	0.02		1810	211111	-5.36	-2.42		
Michael	Blanchard	120,120	100.00	r of h	200	W.	1.14		
Bob	Boal				27.76	-0.19	-4.33	1.72	2.75
Haig	Bohegian		7 14 77	-	6.72	1111100			
Norm	Brand	41.61	8.07	0.80	-0.90	9.56	-24.63	-4.00	-6.84
Dan	Brannen		-0.21	-					
Margaret	Brooke	-6.52			471111111111111111111111111111111111111	711 Gui			
Nick	Brooke	-6.61							
Jim	Brown			0.36					
Frances	Childs				-	10.46			
Felix	Cichocki	2.14	0.76	6.51	0.99	00.25		-1.89	
Sal	Corrallo		-	-		-	-		-11.38
Robert	DeCelle	100		1.00	187.61			17.77.11	
John	Dunaway			4.58	-			-	-
Miriam	Gomez	-	-3.86	-	_	-	-	_	0.10
Sharon	Good	100000	1 10 10		PARTY.	4.41	40.47	0.00	3.13
Barb	Grass	2 2 2 2 2		0.0	C Trip	-1.11	12.17	-0.60	
Bill	Grass	2.22	-	4.01	0.00	-0.83	-3.73	-2.57	0.00
Dave	Gwyn	-3.33	12.11	4.91	0.65	1.86	-10.20	1000	0.63
Ben	Hablutzel	-3.05	1.10	1.00	100	1	0.07		0.05
Finn	Hansen	3.31	4.16	-1.02	4.28		-0.07	-1.04	2.05
Bob	Harrison	-	-	-			0.04		-0.83
Walter	High	-	-	5.07	4.00	20.00	-3.34	4.05	0.50
Basil	Honikman	-	-	5.67	-1.22	-29.89	-0.17	1.35	2.52
Linda Bard	Honikman			111000	0.47	-	111111111111111111111111111111111111111		3.28
Jim	Horton	-	-		-0.47	-	-	-	-
Alan	Jacobs Jones	-	-	0.01	28.14	-	_	-	-
Clain	Jones		-	0.01		1.11			
Bill	Keesling	-			0,09	22.29	-	-	-
Tom	Knight	1.50				22.23		-	
Carol	Kuo	1.50		-	-	0.72			0.34
Justin	Kuo			17.14	-1.61	0.07	-2.85	40.21	-1.09
Bob	Langenbach	-0.66		3.50	1,01	-0.93	0.33	0.42	-0.52
Carole	Langenbach	-0.00		3.50	-	-0.00	1.76	0.42	-2.23
Mel	Lemon			-	-		1.70		157.85
Tom	Mayda				-0.21				137.03
Mary Anne	McBrayer	-2.91	0.14	4.06	-1.69	0.61	2.54	2.40	
Tom	McBrayer	-3.66	-2.38	-1.48	-0.90	3.07	-0.43	0.52	
Dick	Mochrie	-0.00	2.00	1.40	-0.00	0.07	-6.11	2.13	
Vayne	Nicoll	-1.11		-10.34	0.54	-2.55	-0.11	1.32	-1.26
Ron	Pate		100	10.04	-7.62	-200		1.02	-1.20
Rick	Recker	-0.79	-2.22	-0.17	-1.96				
loan	Riegel		1.74	-3.35	-1.40	2.28		-1.17	
Pete	Riegel	-1.00	0.95	0.08	-0.52	-1.25	-0.39	0.13	-0.99
Bruce	Robinson			5.50			2.30		4.00
arry	Schloss			2.07					
Don	Shepan	3111 Z1	SS(U)ZZ	1010	DOME		1147.11	21575	-0.82
lim	Skelly	. Francisco	. ifelan	i I en			17.01		0.15
lim	Smith	0.86							
hristine	Steele	1100		01.00	W DYE	1 1/2 1/2	-1.83		
Phil	Stewart		1	a Last	e de		1		6.48
tephen	Tabb	0.62							
Bob	Thurston		0.84				77010		
Seorge	Tillson								-1.65
eter	Torres, Jr.				33.21				
avid	Troy	7/10	- 101	111 07	1,000	18.38		J12	
Seorge	Vernosky				27.30	-1.49	-4.68	1.31	0.50
Caren	Wickiser				-1.53		-5.02		
Mike	Wickiser				2.49	0.22	-0.86	2.36	-0.00
10						0.22	2.30	2.00	0.00
	Median	-0.72	0.76	0.58	-0.06	0.42	-1.83	0.47	0.15
	Average	1.14	0.73	1.68	11.54	1.50	0.58	-6.82	6.241
	Std Deviation	10.16	3.13	5.41	36.84	9.45	1.46	3.74	31.13

#### MISTAKES ON RACE DAY

At the dawn of road racing, groups of runners organized their own races. No records nor prize money were involved, and the races were held to no particular quality standard. Such volunteers as were needed were recruited on the spot from the available pool of relatives and spectators. Some races were started by the a runner, who hung the watch on a bush, and the first runner back did such timing as he could. Entry fees were low to nonexistent. The runners had fun.

As road running grew, racing fields got bigger. Clubs began putting on races. Record-keeping began, and course certification and timing became more important to many runners. Competitive runners appreciated the opportunities that arose from good technical conduct of races. Still, bad things occasionally happened. I ran a marathon once where the field was stopped 1/2 mile from the start by a freight train. There was a lot of griping about wanting a re-start, but before anything could be done the train was gone and everybody took off again. Finish and timing was done as though nothing had happened, and no uproar ensued.

At another 1970's Ohio 10 mile race, a policeman who was supposed to direct the runners was called off course in mid-race for a police emergency, and the field all got lost. They finally arrived at the finish from four different directions. Prizes were awarded according to how fast each person thought he would have gone had things not gone awry. The awards ceremony was accompanied by an interesting combination of groans and laughter as "finish times" were announced. Many runners were pretty unhappy, especially since, in those days, one had to travel considerable distance for a racing opportunity.

More recently, a multiple-loop ultramarathon had a very limited number of volunteers, and each timer had a sheet with ten runners to time. One mid-pack runner was inadvertently given an extra time, and the short time for the lap was not noticed by the timers, who were ordinary people with no special skills. As a result, the runner completed one less lap than he should have, and this was not discovered until well after after the race was over. The runner evidently did not notice that he had completed only 9 laps rather than 10. Since he wanted to use the result for a Western States qualifier, he was disgruntled.

The East Valley Marathon, at which 3 invited professionals inadvertently cut the lightly-marshalled course and were disqualified, was well publicized a few years ago. If the race had happened 10 years earlier there would have been no prize money to lose, and thus less unhappiness. Would there have been such a stink raised had those three runners been local amateurs rather than invited pros?

What's happening to the sport? In my view, two things - growth and money.

First, fields have grown to unwieldy sizes. In former times one might see 50 to 200 people turn up for a 5 mile or 10 km race. This number is easily handled by primitive but reliable finish line procedures. The last decade has seen fields expand tenfold, necessitating complicated finish line procedures, if all are to be accurately timed and placed, and veritable May Day parades of lead vehicles full of photographers, dignitaries and TV cameras.

Second, money has entered what is still a predominantly amateur sport. As a result we have sponsors providing huge amounts for promotion of their products through the sport. We have professional race directors who are talented at finding sponsorship money, and who make a living producing races. And we have professional runners who are fast enough to win the cash prizes made possible by sponsorship. On the amateur side, we have the race-day volunteers and the ordinary runners - that 99 percent of the field that has no expectation of winning any cash prize, but whose bodies are necessary for the event to be huge, and thus a "success."

The combination of complexity and money leads to problems. Increased complexity leads to mistakes, and the consequences of those mistakes are greater when large sums of money are at stake. The professional end of the sport is supported by people who, by and large, receive little or nothing for their work, and who may undertake a task which is beyond them.

We cannot expect perfection when races are manned by volunteers. The typical volunteer is recruited for the day only, and may know little or nothing about road racing. These people will, hopefully, be assigned jobs that are essential, but very simple to perform. Those volunteers who have some experience are best used in the jobs requiring quick, accurate thinking, such as at the finish line. If a race director is lucky he will have a good pool of volunteers, but often it's a case of seeing who shows up on race day.

Race directors themselves are often new volunteers, and unaware of the consequences of bad administration. Some are employees of the sponsoring organization, recruited for the job. They do not have all the time in the world to spend on the race, but must fit it in between the other things in their lives.

There are some large races that routinely get things right. Generally these are directed by knowledgeable and experienced people who have numerous experienced volunteers to help.

All race directors, experienced or not, want very much for their race to be a success. When something bad happens, they are just as sick about it as the affected runners. Every one has done the best they thought they could.

What does this mean to the world-class runner who is upended by a kid handing out water, or who bumps into some bozo who jumps from the crowd to wave at the TV camera? What comfort is there to a professional who goes off course, because it's badly marked, and loses out on what would have been sure-thing prize money? On a lesser scale, we've got the ordinary runners striving for race-day age-group glory, who become victims of finish-line screwups.

It's easy to point fingers after those things happen, and to say what ought to have been done. It's less easy to prevent the bad things from happening. And, with money at stake it's harder for those affected to forgive mistakes, as used to happen after a cooldown period.

We must remember that our sport rests on the efforts of those who direct races. As runners we should be grateful for all that they do, and do all we can to support them. The majority of races are well-directed, with only minor deficiencies. If those who make mistakes are to be pilloried for them, they will not put on more races. Also, others who see the abuse that's received for a simple mistake will be reluctant to take up the job of race director.

I have little faith in those wordy disclaimers that appear above my signatures on entry forms. Still, the following text might go a long way toward resolving some of the disputes arising from human mistakes:

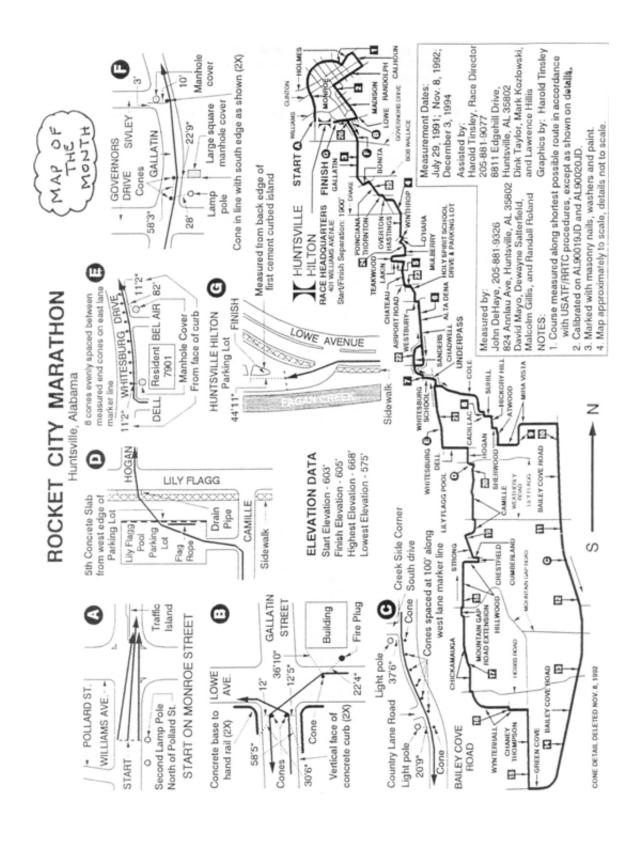
"Race management will do its best. Mistakes may be made. If they are, race management will do its best to resolve the issues. As a condition of entry, runners will be required to abide by such resolutions."

If we all, amateur and professional alike, behaved as though we had signed such a disclaimer, the sport would be healthier. There's an awful lot of unattractive stridency around, arising from mistakes that cost someone glory or money.

If we eliminate from our sport's administration all those people who make mistakes, there will be precious few races for us all to enjoy, and very little prize money to be won by the elite. I think all of us should be thankful we have such a fine sport to enjoy, and try to be philosophical when things are less than perfect.

Next time you go to a race, say something nice to the volunteers and the director, even if mistakes were made. Make them happy and they will try again next year. Abuse them and they disappear, and so does the race.

fete



#### NUMBER OF CERTIFIED COURSES BY STATE AND YEAR

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Total
AK	1	0	0	0	1	4	4	5	6	10	10	0	41
AL	2	14	8	15	12	11	5	23	27	20	19	28	184
AR	0	4	5	9	4	4	8	8	13	4	5	9	73
AZ	0	13	14	23	20	20	7	10	10	16	9	5	147
CA	4	68	105	146	130	93	133	129	88	139	103	87	1225
CO	0	30	17	15	30	14	20	23	26	35	36	29	275
CT	0	1	10	17	22	19	21	31	20	20	19	21	201
DC	0	3	23	25	17	9	11	4	9	7	6	15	129
DE	0	0	12	24	18	18	13	13	23	23	18	10	172
FL	0	17	21	60	52	71	70	63	72	84	74	56	640
GA	0	7	20	50	41	28	32	29	30	35	37	30	339
HI	0	4	6	9	9	9	6	1	3	0	5	0	52
IA	1	7	5	11	4	16	5	21	11	14	8	11	114
ID	0	1	1	4	0	1	0	1	1	2	0	0	11
IL	0	5	14	11	48	52	45	50	68	70	75	72	510
	0	11	24	36	21	17	8	8	15	10	4	16	170
IN					31	14	21	20	24	23	29	30	217
KS	0	7 .	6	12					15	7	12	7	112
KY	0	1	9	19	13	7	16	6	5	2	6	6	42
LA	0	2	2	11	2	0	1	5					
MA	2	4	4	17	29	22	17	34	36	36	26	37	264
MD	0	4	8	16	17	28	14	7	17	5	17	14	147
ME	0	4	3	25	15	6	9	12	11	16	26	16	143
MI	0	22	27	37	22	36	31	18	33	17	25	40	308
MN	0	5	11	27	46	32	12	18	25	15	14	7	212
MO	0	13	14	10	6	8	10	11	4	14	9	7	106
MS	0	1	2	18	6	0	2	7	2	1	3	5	47
MT	0	1	8	5	8	1	4	1	1	3	7	10	49
NC	1	16	42	88	70	72	55	52	61	57	52	34	600
ND	0	1	3	0	2	1	0	0	1	2	0	0	10
NE	0	4	22	21	25	17	3	5	0	6	7	7	117
NH	0	11	10	21	17	16	9	111	12	12	21	34	174
NJ	2	15	13	20	38	46	51	33	35	39	50	63	405
NM	0	1	0	3	3	5	3	11	11	15	4	4	60
NV	0	0	6	4	5	0	4	1	4	2	2	4	32
NY	3	27	61	57	46	44	41	45	41	65	43	62	535
ОН	1	44	51	46	52	56	64	64	62	60	91	68	659
ok	0	34	68	72	65	51	54	50	51	74	78	47	644
OR	0	22	32	32	14	11	11	9	12	13	8	11	175
PA	1	23	24	28	29	38	57	50	48	32	26	50	406
RI	0	2	1	4	5	1	2	9	1	5	4	10	44
SC	0	0	15	32	41	52	37	35	51	25	36	22	346
SD	0	1	6	6	2	0	0	4	1	1	1	2	24
TN	0	3	10	13	10	16	19	9	14	26	23	18	161
				37	97	105	93	71	83	70	85	99	772
TX	0	10	22			14	11		15	4	10	10	85
UT	0	0	3	6	6			6		26	15	17	214
VA	1	12	17	21	22	26	24	19	14				
VT	0	0	1	5	3	5	1	4	3	7	8	4	41
WA	1	25	37	53	34	18	20	28	20	14	18	18	286
WI	0	7	0	13	22	20	17	4	15	11	3	3	115
WV	0	8	4	7	2	4	3	3	0	4	3	1	39
WY	0	0	1	0	0	0	2	0	0	0	0	0	3
Total	20	515	828	1241	1234	1158	1106	1081	1150	1198	1190	1156	11877

#### NUMBER OF CERTIFIED COURSES BY DISTANCE AND YEAR

Miles	Km	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Total
	5	1	58	89	187	275	327	350	23	435	470	472	515	3202
	10	8	199	308	401	372	338	317	23	247	257	239	220	2929
	8	1	43	99	136	102	89	76	5	76	66	63	50	806
5		2	32	49	90	68	92	70	12	58	63	62	40	638
Mar	42.2	1	49	61	83	59	55	58	18	50	47	50	45	576
HMar	21.1	0	20	34	61	54	46	37	25	43	32	37	40	429
Cal	Cal	0	0	2	19	9	9	21	54	62	81	80	65	402
	15	1	27	29	41	45	23	20	1	24	13	16	16	256
1		0	9	8	23	18	38	17	31	23	20	32	24	243
2		0	4	7	25	14	20	19	53	15	13	23	16	209
10		0	13	18	24	35	16	21	13	22	15	16	14	207
4		1	4	13	10	18	13	14	20	12	19	18	23	165
-	20	0	7	20	22	24	16	5	11	8	11	11	10	145
	12	0	3	10	8	16	10	7	50	4	8	12	1	129
	30	1	6	10	9	15	7	4	58	3	11	2	2	128
	50	0	7	9	9	13	5	2	68	1	5	1 0	4	124
_	25	0	6	9	13	14	6	6	21	4	8	2	3	92
EO	25	1	2	7	11	7	6	2	23	6	2	3	6	76
50	1	0	1	0	2	1	0	1	55	4	5	2	3	74
Tools	_		3	4	8	3	1	3	28	6	8	3	2	70
Trck	Trck	1			6	3	3	5	31	2	8	5	3	69
	3	0	2	1		13	3		18	3	1	1	3	59
	100	0	4	6	4			3	29	6	3	1	8	57
3.5		0	0	0	0	5	3	2	3	6	6	4	5	49
	2.5	0	1	1	2	7	4	10				_		43
3		0	5	4	4	2	2	2	8	5	4	5	2	32
	2	0	1 0	0	2	4	5	2	0	2	4	4	8	
8		0	3	0	4	4	3	0	1	3	0	2	1	21
20		0	0	3	6	3	3	2	0	1	0	0	0	18
7		1	0	1	1	1	2	0	5	1	1	1	1	15
	7	0	0	2	1	0	1	2	6	1	0	1	0	14
100		0	0	2	6	2	0	0	0	1	0	0	2	13
	1.25	0	0	0	0	0	0	1	1	3	1	2	3	11
	40	0	0	3	1	6	0	0	0	1	0	0	0	11
	4	0	0	10	2	1	0.1	1 0	0	0	0	1	1	8
6		0	1 8	0	1	1	0	2	1	0	0	1	0	7
2.5		0	0	0	0	0	0	1	2	1	0	0	2	6
15		0	0	2	1	0	2	0	0	0	1	0	0	6
	6	0	0	0	1	0	0	1	0	0	1	0	1	4
	60	0	0	1 0	0	0	0	0	0	2	0	0	0	3
	35	0	0	1	0	0	0	0	0	0	1	0	1	3
12		0	0	0	0	1	0	0	0	0	0	1	0	2
	21	0	0	0	2	0	0	0	0	0	0	0	0	2
9		0	0	0	0	0	0	0	0	0	0	2	0	2
25		0	0	0	0	0	0	0	0	0	1	1	0	2
20	1.5	0	0	0	0	1	0	1	0	0	0	0	0	2
36	1.0	0	0	0	2	0	0	0	0	0	0	0	0	2
1.5		0	1	0	0	0	0	0	0	0	0	1	0	2
70		0	0	1	0	0	0	0	0	0	0	0	0	1
10	26	0	0	0	0	0	0	0	0	0	1	0	0	1
		0	0	1	0	0	0	0	0	0	0	0	0	1
	45						0	0	0	0	1	0	0	1
4.0	39	0	0	0	0	0								
18		0	0	0	0	0	0	0	0	0	0	0	1	1
14		0	0	0	0	0	0	1	0	0	0	0	0	1
11		0	0	0	0	0	0	0	0	0	0	1	0	1
18	14	0	0	0	0	1	0	0	0	0	0	0	0	1
	16	0	0	0	0	0	0	0	0	0	0	0	1	1

#### NUMBER OF CERTIFIED COURSES BY CERTIFIER AND YEAR

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
ACL	1	22	40	87	72	76	54	54	64	55	43	31
AM	0	0	0	0	0	0	0	28	31	50	35	45
AP	0	16	23	47	0	0	0	0	0	0	0	0
AS	0	4	50	2	0	0	1	0	0	0	0	2
BB	0	34	71	81	73	66	60	55	52	74	79	49
BC	0	0	0	0	0	22	1	31	28	36	38	37
BG	0	0	0	14	37 43	45	31	54	22	0	0	0
BH	0	0	3	34	7	3	7	3	1	0	0	0
BN BS	0	0	0	0	19	43	34	31	51	27	43	27
BT	0	0	0	0	25	48	15	6	4	2	0	0
BU	0	0	0	2	0	0	0	0	0	0	0	0
CEG	0	2	6	0	0	0	0	0	0	0	0	0
CJ	0	2	1	27	8	0	0	0	0	0	0	0
CW	10	21	41	38	62	24	51	53	29	36	24	28
DB	0	0	0	0	6	50	71	38	39	45	43	41
DK	0	1	10	7	2	3	0	2	0	-0	0	0
DL	0	0	0	0	0	23	18	16	41	77	68	51
DLP	0	0	0	0	0	0	4	8	12	4	5	9
DM	0	5	10	2	0	0	0	0	0	0	0	0
DP	0	0	0	0	0	0	10	23	27	35	36	29
DR	0	1	10	15	19	19	19	29	17	19	19	21
EL	0	0	0	0	0	0	0	0	0	17	24	4
ETM	0	0	0	10	26	36	64	71	87	71	87	102
FC	0	0	0	0	0	8	7	20	16	29	9	9
FH	0	0	0	6	6	14	11	6	15	4	10	10
FW	0	0	0	0	0	2	4	5	6	10	10	31
GAN	0	0	0	0	0	0	0	0	0	0	15	
GD	2	28	28	64	54	0	0	0	0	0	0	0
GLD	0	2	6	8	3	6	10	12	10	14	0	0
GN	0	0	0	25	15	0	0	1	1	3	7	10
GT	0	0	0	3	0	0	0	0	0	0	0	0
1D HMC	0	0	0	0	6	11	6	23	25	10	18	16
JL	0	2	24	32	29	33	7	13	.0	0.	0	0
JMC	0	0	13	43	36	0	0	0	0	0	0	0
JS	0	0	0	0	0	0	0	5	14	6	19	15
JW	0	0	0	0	0	0	41	50	67	65	72	69
KL	0	1	-5	22	71	68	32	1	0	0	0 0	0
KU	0	0	0	0	0	0	0	1	5	15	11	14
KY	0	0	0	0	0	4	3	0	6	3	4	3
LB	0	0	0	0	0	0	3	13	15	12	9	11
LE	0	3	10	0	0	0	0	0	0	0	0	0
MF	0	0	0	0	0	0	0	11	7	10	7 0	8
MR	0	0	0	0	1	19	20	25	18	16	17	18
MW	0	0	0	0	0	0	10	21	23	15	7	17
PC	0	15	35	45	30	1	0	0	0	0	0	0
PR	1	66	110	154	143	97	85	58	66	62	112	75
PT	0	0	0	2	00	0	0	0	0	0	0	0
RE	0	0	0	0	0	13	51	56	48	33	25	47 33
RH	0	0	0	0	0	0	0	0	0	13	0	0
RL	4	48	37	61	6	0	0	0	0	0	5	36
RN	0	2	9	27	46	34	12	18	25	16	14	7
RR RS	0	2	24	48	51	55	76	68	52	83	61	43
RT	0	9	41	66	55	61	51	23	22	31	22	29
SH	0	0	0	0	22	36	31	18	33	17	25	39
SV	0	0	0	0	0	10	6	0	0	0	0	0
TB	0	4	22	17	14	2	0	0	1	3	1	1
TC	10	185	97	14	0	0	0	0	0	0	0	0
TD	1	24	36	52	33	0	0	0	0	0	0	0
TF	0	0	0	1	5	6	6	1	3	0	0	0
TK	0	11	33	32	43	37	29	8	7	19	11	13
WC	0	0	0	0	0	0	0	0	0	0	4	27
WG	0	0	0	0	42	70	20	4	15	11	3	3
WH	0	0	0	11	0	1	0	0	0	0	0	0
WN	0	4	32	123	124	112	106	117	138	148	139	92
WS	0	0	0	5	0	0	0	0	0	0	0	0
Total	20	515	828	1241	1234	1158	1106	1081	1150	1198	1190	1156

Total Courses 11877 4419 Thornbark Court Hoffman Estates, Illinois 60195

October 16, 1994

Wayne B. Nicoll Ragged Mountain Club Potter Place, NH 03216

Dear Wayne,

First, business. Attached to this note are the next nine certificates from Illinois. I have forwarded your comments on the two certificates noted in your last letter to Chuck Hinde and Jim Knoedel and expect a response soon. I will forward the updated course maps to you when I receive them.

My fax number at work is (708) 519-7724. I also have a fax modem on my Macintosh but haven't successfully received anything on it. If you should want to fax something to me at home, please call me first at (708) 359-4598. We have more than one line into the house and I usually hook up the computer to one of the other ones.

An update on me: It's been an eventful summer. In June I completed my Master of Management degree (most schools call it an MBA) at Northwestern's Kellogg Graduate School of Management. I'd been working on it part-time, at night, one or two courses at a time since the fall of 1990. Then on July 28 I became a father again; her name is Rebecca and she's a doll. I haven't been doing much running or measuring but my goal is to get back into some kind of shape and to lose the pounds I've gained over the last four years. I hope my knees will hold up. It'll be a long haul but I have too much invested in clothes to go out and buy new ones.

Jim and Chuck appear to be handling the lion's share of the measurement around here. I think that's because we're getting more and more professional race directors who are either busy when I can measure or would prefer to do their measuring during the week. As you may be aware, Chuck is retired and Jim coaches college track and cross-country at Loyola of Chicago, so their schedules are more flexible than mine. I would say that the best situation would be to have a lot of measurers affiliated with running clubs, but it doesn't appear that many running clubs put on many races in the Chicago area. Illinois is at the bottom of "measurers per million" list and I would like to change that but it probably won't become an issue until one of the three of us gets out of it. Your suggestions are welcomed here.

Wayne Nicoll October 16, 1994 Page 2

I appreciate your offer of lodging and camaraderie in New England. I have never really been to much of the region and would like to explore it someday (especially Maine, Vermont, and Rhode Island- the only three states in the lower 48 in which I have not yet set foot) but it's not yet on the agenda. I'm sorry I was unable to make it to Phoenix but that's the way it goes. I'll try to make the next one.

I look forward to working with you soon,

Regards,

#### FROM THE DESK OF BILL CALLANAN

TO: Pete Reigel

RE: Las Vegas Marathon drop

Pete;

I called Al Boka, the race director for this event, and asked him to help me clear this up. He was the person who had given me the elevation numbers to be put on NV-93008BC. As you know, this is the fourth time in five years that I've re measured and changed this course for him. I repeated the elevation numbers that he gave me for his latest version of his race course (NV-93008BC). He said that the figure for the start (1981 feet) was incorrect and that the actual number was 2750 feet above sea level.

I decided right then to get the actual figures myself. The start of this marathon up to mile 15 is in a wilderness area and the maps don't give much help. I than borrowed an altimeter from a friend of mine that owns an airplane. He came with me and we got a reading at the start and every mile to the finish. This is a very expensive piece of machinery and I can only say that he believes in it's accuracy.

Anyway, the following numbers are the elevation points for this course. These numbers reflect feet above sea level.

START	2750	14M	2825
1M	2770	15M	2730
2M	2805	16M	2650
3M	2820	17M	2565
4M	2875	18M	2490
5M	2940	19M	2410
6M	2970	20M	2330
7M	2945	21M	2260
8M	2970	22M	2240
9M	3020	23M	2230
10M	3035	24M	2237
11M	3060	25M	2240
12M	3020	26M	2230
13M	2905		

This means that the following amendments should be made concerning the elevation for the 1994 Las Vegas Marathon (NV-93008-BC).

#### The Start is 2750 ft, Finish is 2230 ft, Highest point is 3020 ft Lowest point is 2750 ft.

This course is definitely not "slightly uphill". Al Boka also told me that Ryan Lamppa must have misunderstood him in regards to altering the course. The course (NV-93008-BC) was the last course that I measured and it will be the same this year. Al was trying to explain to him that the first and not last 2.5 miles at the beginning of the race course were altered when we measured NV-93008-BC. The year before, the first 2.5 miles came down a very steep hill and made a left turn and this was the major change in the latest version of this course.

My apologies to Ryan Lamppa or anyone else who might assume that the course was uphill with the incorrect figures on the certificate. Mr. Boka is proud of the fact that his course is downhill and even advertises it as downhill and fast. I might disagree with the "fast" part because of the wind factor in the open desert. The winning times in recent years reflect my opinion.

I hope this clears up this matter and if anyone needs any further info on this please call me anytime.

Best Regards,

Bill Callanan

6252 Clarice Ave Las Vegas, NV 89107

Phone: 702-870-8269 Fax: 702-878-1038

#### USA TRACK & FIELD



Peter S. Riegel Chairman, Road Running Technical Council 3354 Kirkham Road Columbus, OH 43221-1368 614-451-5617 (home) 614-424-4009 (work) 614-451-5610 (FAX, home)

Bill Callanan - 6252 Clarice Ave - Las Vegas, NV 89107

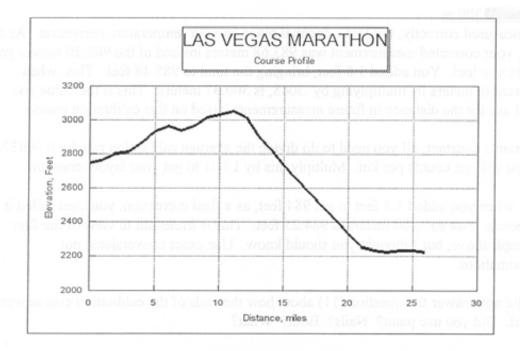
by FAX: 702-878-1038

Dear Bill,

November 17, 1994

Thanks for the clarification on Las Vegas Marathon elevations. I intend to publish it in next Measurement News, since we have had a lot of calls over the last few years inquiring if the course was a standard course, with little drop. I gave all those people bad information, and I would like to clear it up.

Here is the course profile as given by the altimeter information you sent:



While it is possible to question the use of an altimeter for precise determinations of elevation, in this case it is clear that the course lives up to its billing.

Thanks for taking the time and trouble to clear this up.

Best regards,

#### USA TRACK & FIELD



Peter S. Riegel Chairman, Road Running Technical Council 3354 Kirkham Road Columbus, Ohio 43221-1368

614-451-5617 (phone) 614-451-5610 (fax)

December 15, 1994



# GET GRAY HAIR

Dear Mannes.

I've just gone over your applications for the 300 meter and the 5k. I have some comments and questions:



You measured correctly, but lost a decimal place on your temperature correction. As a result, your corrected measurement was 983.68 meters instead of the 982.20 meters you thought you had. You added 1.8 feet, bringing the total to 985.48 feet. This, when converted to meters by multiplying by .3048, is 300.37 meters. This is the value you should use for the distance in future measurements based on this calibration course.

To obtain a constant, all you need to do divide the average calibration ride by 0.30037, and you will get counts per km. Multiply this by 1.001 to get your layout constant.

Note: when you added 1.8 feet to get 984 feet, as a final correction, you then called it 300 meters. Not so. 300 meters is 984.25 feet. This is irrelevant in view of the first paragraph above, but I thought you should know. Use exact conversions, not approximations.

You did not answer the question (11) about how the ends of the calibration course were marked. Did you use paint? Nails? Both? What?



Your method of measurement did not follow the instructions. On the first ride, you obtained 18232 counts for each mile. That's fine - it was your working constant. However, on the second ride you also obtained 18232 counts for each mile. Either a miracle occurred, or you stopped at slightly different points on your second ride. On the

second ride, you are supposed to stop at the same marks you laid down on the first ride. This gives a comparison of two measurements of the same distance. What you did gives no comparison.

On your first ride, you got 5 km. On the second, you got "4.99." You used the first, in spite of the fact that the lesser of the two is the one you were supposed to use. By your figuring, you should have added .01 km or 10 meters to the course. If you had carried a few more decimals you would have had 4.99938 km. You can see it makes a difference.

You did not indicate that you added anything at all to the course, even though, by your own figuring, you should have.

However, once we plug in the correct value for the calibration course, the lesser length comes out to 5000.83 meters, which is OK. You need not correct the course.

As for the route, you answered "yes" to question 23, indicating that the runners have full use of the road, from curb to curb. Yet your course map shows numerous cones which keep the runners to one side or the other. Which way did you measure - unrestricted or coned? If it was coned, how will the cone volunteers know where to correctly place the cones?

You have four turn-around points. The first is "6' from curb of Blvd." You do not indicate which curb is appropriate. Do you mean the curb of the median divider to the north? To the south? It's not clear.

The other three points are located relativeto painted lines on the roadway, which will disappear in time, since they are not permanent landmarks. It's better to locate a point relative to something fixed, such as "5 feet south of the south curbline of Schrock Road."

#### General Comments

In your math you tend to round things off prematurely, and to use approximations instead of more exact values. It tends to introduce unnecessary inaccuracies. It's better not to round things off, but instead to use at least 5 or 6 significant figures in all calculations.

I would like to certify this course, but I badly need to talk with you before I can do it. After you have read this, call me first chance you get. I will attempt to fax this to you at work, since time is short. If this fails, I'll mail it.

Best regards,

Pete