

MEASUREMENT NEWS



March

1988

Issue #28



Photo: Joan Riegel

Measurers gather in Miami to admire John Disley's solid front wheel, prior to AIMS validation of Orange Bowl Marathon course.

Left to right: Wayne Nicoll, Pete Riegel, Helge Ibert (Berlin), John Disley (London), Doug Loeffler.

MEASUREMENT NEWS

#28 - March 1988

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BACK TO OUR ROOTS

New readers of MN will see, in this issue, a new format. It's not as attractive as the nicely-printed MN's that Kevin Lucas produced during his time as publisher. Kevin worked hard to make MN an attractive product, and he succeeded. Why, then, the change? A little background may help.

MN started out as a simple photocopied newsletter circulated to half a dozen people. When Kevin took over we had about 60 people receiving MN. We now have 125 people on our list. When Kevin offered to publish MN in May of '86 I took him up on it. Kevin changed MN into a more attractive publication starting in June '86. I am going to try to keep the cover photo idea, even though xeroxing isn't as nice as offset printing.

To foster communication and share our knowledge is our main goal of MN. With xeroxing I can get MN out quicker than quality printing too, which means responses come back faster.

Printing costs are higher than I want to spend at this time. The return to xeroxing will hold down costs to less than half of printing costs. Annual savings should exceed \$1500 - money that can be used for other things.

Therefore this change back to the original format (with some changes, such as full-size copy) is due to the twin needs for economy and speedy communication.

Thank you to Kevin and his wife Joni for all the hard work they have put in to produce MN since that 17th issue in June of '86. All the computer name and address updates, reconciliation statements, mailing duties and most of all putting up with the cranky editor. Again, thanks to both of you for a job well done.

NICE WORK, BOB

Glen Lafarlette, prolific Oklahoma measurer, wrote to Bob Baume (copy to your Editor):

"I'm not sure where it all would be if it was still like it was before you came along. Your contribution is, along with Joe McDaniel's, the thing that has running in Oklahoma where it is today.

I know it is extremely demanding on you and your wife. At times you probably question your decision to do it, but be assured the hard work and dedication is paying off. Your ideals are showing up everywhere. People are accepting things now as never before. Thanks, Bob, for helping us help ourselves.

Without someone of your caliber to help us and push us we would have given up long ago."

Report on the World Championship Marathon Course, Rome 1987

JOHN DISLEY

THE World Championship Marathon Course in Rome was uncompromising—world television and spectators came first and second, while the runners finished a poor third.

The course was designed to show-off the tourist splendours of the Eternal City and to this end (to make sure you didn't miss the feature on the first viewing) it went by St. Peter's Square, Piazza Navona, the Colosseum and Piazza Venezia, etc., time and again, and again, and again.

In fact, the route was ingenious with its flower shape. The start in the stadium is the bulb, the first nine kilometres the stem, on which there is one leaf which is St. Peter's Square, then the centre of the flower in Piazza Venezia which has three petals. The petals are long and narrow and visit the Colosseum Piazza Navona and the Tiber River. Then after going around the petals twice the route retraces its steps to the stadium.

The sound and sight of so many fountains and water must have been agony for the runners sweltering in temperatures of 75°—80° F. Add to this the fact that at least 40% of the course was on cobble stones, and you will gather that this route was not user-friendly.

Rosa Mota's 2-25-17 was in my opinion one of the greatest marathon performances ever achieved by men or women. She ignored the heat, the hills, the fifty-six right-angle or sharper corners, the cobble-stones and without any semblance of an opposition ran within two minutes of her personal best time of 2-23-29 which she did on the flat Chicago course on the same good day that Steve Jones ran 2-07-13.

Compared with Rosa's performance the men marathon runners were, to say the least, mediocre. And, in fact, it is interesting to note that even after the World Championships the top eight best performances of the world in 1987 still belong to last May's London marathon.

The course was very difficult to measure and with just four weeks to go when the invitation came to AIMS it was not going to be easy to make any corrections if the original measurement was found to be wrong.

Still to be asked by Luciano Barra, Honorary Assistant to the IAAF President, Primo Nebiolo, to certificate the World Championship course meant that the necessity of having an outside measurer check-out a course was now recognised by the highest in the land.

This was my second measuring assignment in Italy, the first was in Milan for this year's Stramilano half-marathon. This course had been 'surveyed' with the odometer on a Vespa, and not surprisingly was over 200 metres short, so it was with foreboding that Chris Brasher and I set our wheels over the Rome course.

However, Fabio Bonelli—the route measurer, had used a Jones Counter and had vaguely understood the principles of calibration and shortest possible routes, so with some luck the certification ride shouldn't be widely different.

To be on the safe side the "official" 1,000m calibration course was re-measured with a steel tape and checked-out within three centimetres. We later found out that the course had been laid-out by Bill Noel of the New York Road Runners Club who had been interested in the length of the last major marathon run in Rome.

The World Championship course is not Franco Fava's annual Rome marathon route, and English runners who had tried to follow the championship course from the official maps had all reported getting totally lost. Luckily, Fabio and the police protection knew exactly where the twists and turns were and, more importantly, how the large Piazza's could be traversed without one becoming a Roman traffic statistic.

The calibration ride was done in a temperature of 75° at 6.30 a.m.; by 11 a.m. the temperature was 90° plus, and very interesting things were happening to the bike wheels. I now use a solid polyurethane front tyre on my measuring bike, whereas Chris was using a borrowed mountain-bike with heavy rubber tyres. Our pre-determined five kilometre figures were moving us further apart at each stop, until Chris was nearly 100 metres ahead of me at the 40 kilometre mark.

When we returned to do our post-measurement calibration we found that my series of runs were still within 1 count of the pre-measurement calibration rides (about 10 centimetres), while Chris's counts were over 40 different. I have never experienced such a change due to temperature before, and had we both used rubber tyres we should have had a difficult time trying to reconcile two sets of figures, and in deciding when the heat began to affect the accuracy of the figures. Whatever we decided would have been arbitrary and hence unsatisfactory for such an important event.

My solid tyre saved the day, and after adding on the 1-1,000 "short-course-prevention-factor" (42 metres) we were able to inform Flavio Salvareze—the Race Director, that we needed to find another 162.7 metres.

As all the literature on the marathon had by now been printed there was no way that the route could be changed by using new roads. That only left room to move the start in the stadium back 162 metres. This too was vetoed by the Director because TV had all its cameras scheduled for a start on the finish line! We now had an impasse. How could the course be lengthened without anyone knowing?

We then knew that the Pope had the solution. All we had to do was to widen the arcs around St. Peter's Square. Easier said than done, but after some dozen experimental rides across the cobbles and around the fountains an increase of 81 metres was found, which doubled up for the out and back course would produce the required short-fall and the Certification. And most importantly no word in the instructions would need to be changed. It was a long and challenging day, and quite a number of litres of beer were needed to settle the nerves that evening.

As a post script, I rode in the lead-car for the women's race on the first day of the championships. Quite a few things were different from the course that we measured. I reckon that an alteration in the barrier arrangement in St. Peter's Square lost 22 metres, but that a number of new barriers in the Piazza's gave back what was lost. Not a very satisfactory way of concluding a marathon validation, and had a world record been achieved I doubt if I would have signed a validation document. As it was I have no doubt that the runners ran no less than 42.195 kilometres, but they did not run the route that had been measured and certificated.

Of course, the problem was caused by the last minute measuring of the course by the AIMS/IAAF approved measurer, which meant that any alterations were liable to fall foul of late planning communication problems.

There is no danger of the next important marathon—the Seoul Olympics, failing to pass the test. The course has been measured eighteen months ago for the Asian Games and a blue-line painted on the roads. It has also been partially checked by a group of top AIMS measurers and found to be very precise in its length.

FINISH LINES	
TIME	PLACE
0:44:13	388

Finish Line Sub-Committee
 Alan Jones, Chairman
 3717 Wildwood Drive
 Endwell, NY 13870
 (607) 754-2339

INTERPOLATED TIMES

In the January 1988 column, I stated my opinion that timing results should not be interpolated from select times since such times are not valid for record purposes. Also, I believe that the technology is here that can allow everyone who finishes to have a time recorded. Jack Moran responded:

 disagree about the desirability of providing an optional capability for interpolating times between select times. Although it should not be necessary to do so, there are occasions on which the individual timing system breaks down completely (whether because of equipment or operational problems). Tic sheets are no solution in a toll-booth-type finish situation, or at least not a timely solution (pardon the pun), and not everyone has a TimeTech. I want to have the capability for interpolating times as an emergency solution. If I have to use select times for final results, I can (automatically) increase each finisher's time to the next higher select time, which does meet IAC timing requirements. I have even used this procedure to establish age-group records, at the Twin Cities 30K and 20-mile splits.

 Jack also sent me *A Minnesota Runner's Yearbook 1987* which lists the best performances on Minnesota roads in 1987. It is really a beautiful piece of work. He includes a small write-up of those who were best overall in each age-division. When I was in Miami I saw Mark Courtney's record book for Western Pennsylvania. Also a work of art.

ORANGE BOWL MARATHON

I really enjoyed measuring the Orange Bowl Marathon course out ahead of the runners with Pete Riegel, John Disley, and Wayne Nicoll with Fred Shields serving as lead rider and guide. I observed that I have been measuring

courses longer (since 1971) but had measured fewer courses than any of them. In fact, this was my first time measuring a marathon-- although Clain measured one a few years ago. I really like the AIMS approach to validation since we were riding the same course that the runners had available to them. In fact, there were a few places where cones were misplaced allowing the runners to take a shorter route and we did take this shorter path although I imagine the runners did not (one place was not obvious until they were past). When a validator goes back after the fact, he/she has to base decisions such as this on viewing the video tape which might not have the necessary field of view.

ROAD RUNNERS CLUB OF AMERICA CONVENTION

At the RRCA convention in Indianapolis May 6-8 Ken Newhans, RRCA Computer Committee Chairman, and I will be conducting a computer workshop. We are going to have six people from six different clubs set up a computer and demonstrate how they use computers. They will not only be demonstrating finish line programs and methods but will show all the ways their club uses computers -- word processing, accounting, newsletters, membership list, etc. Those handling the different stations will be:

Margrid Krueger-Casseday	Durham, NC
Ken Newhans	Minneapolis, MN
Jack Moran	Edina, MN
Alan Avery	Springfield, IL
Bill Glauz	Kansas City, MO
Alan Jones	Endwell, NY

Also at the Indianapolis meeting, Wayne Nicoll will be conducting a workshop on **Race Course Design**.

STORMY WEATHER

On a recent measurement Glen Lafarlette writes to Bob Baumel:

"This latest course has been quite interesting. The only explanation I can come up with is the following:

Upon calibrating I noticed the counts higher than usual and attributed it to a slightly underpressured tire and the strong northwesterly wind that occasionally gusted higher.

I had all my usual gear while calibrating including hammer, pouch for & including nails, calculator, cement chisel (used where nails can't be driven), paint, utility flags, 30 meter tape, thermometers etc.

The course was dry while calibrating, but upon arriving at Oolagah the slow drizzle started. Gary and I drove the course twice and determined it was acceptable, and continued discussing the logistics of parades & other festivities that would follow the 8 km road race. We went out to the Corps of Engineers & determined elevations etc. and noticed that the east and west legs were not 1 mile each. This forced me to perform a preliminary bike ride to actually determine what distance I was dealing with (ed: sounds familiar).

By this time the slow drizzle had become almost a downpour. The first actual measurement ride was short due to the fact that water was everywhere and I was staying completely on paved surfaces and not venturing off the edges into possible holes or who knows what. The second ride was made leaving the paved surface in several areas at turns. I doubt if any runner would follow this path but they might.

When I got back to Port Road calibration course the lightning was severe and the rain pouring down. It was hard for me since I understood the principle of plus and minus current and have frequently as a child and young adult witnessed the forces of nature. I saw 7 cows and a prize herd bull killed in one stroke and have had the tops of trees killed close by me. I once vaulted over an old fence and while I was airborne, the top wire in one hand and my body going over the top, the lightning struck. I felt the shock just precisely at the same time my fingers cleared the top wire. Close, huh?

The bottom line - I am a believer in taking cover and not becoming the SPR for the lightning.

This was a time for 'if it must be done get it over with'. I rode the one kilometer calibration course in top gear or 10th speed & was pushing all the way. The surface was constantly covered with water & I went very fast & straight. Could the front wheel have possibly hydroplaned? "

(ed. note: Glen's postcal was 10 counts per kilometer higher than his precal, and his rides were acceptably consistent. He used SOSS (Sum of Shortest Splits) to compute distance, but because of his good consistent riding this made a difference of only a meter in the length of the course.)

January 5, 1988

Robert Edwards
493 Dale Dr.
Erie, Pa. 16511

Wayne Nicoll
Ragged Mountain Club
Potter Place, NH 03265

Dear Wayne,

How do you like this winter weather up north here? Bet you don't see much like this in Georgia.

I read your article in Measurement News about the 1000' calibration courses. I like the idea of setting up these courses on sight if you have to travel some distance to get to the course you are measuring. It does add to the amount of work needed to measure a course, but there is probably an increase in accuracy, and a good opportunity to re-calibrate if you sense something is not going right. Some might argue that it takes too much time and the old methods are fine. I think that if you are going to measure a course, you should set aside the time required to do it right. I have spent the better part of a day measuring a 5-K course when things started going bad to make sure the final product was good.

I do have one problem with the procedure outlined in the article. I think that all of the standard calibration course paperwork should be required for the 1000' courses. The calibration course is the key to good course measurement. Perfect riding technique is completely worthless if the calibration course is bad, especially with 1000' course. Errors in 1000' courses are magnified more than 32 times over a 10-K course. It is not difficult to use a 100' tape, measure only 99' intervals, and use 100' in your calculations. A reviewer probably can't catch that type of error, but forcing the measurer to submit paperwork tends to make him or her more careful.

Perhaps a modified Calibration Course form is needed so that the important information gets to the reviewer, but not everything that would be needed for certification (could do without a map for example).

I have not used a 1000' course yet since all of my measuring has been in this immediate area. I could have used it for one 10-K I did last year, though, since I had problems with my first try and had to repeat the measurement on another day. I'll be giving them a try in '88.

Have a nice winter.

Sincerely



Bob Edwards

THE ATHLETICS CONGRESS
OF THE USA

Road Running Technical Committee
Peter S. Riegel, Chairman

3354 Kirkham Road
Columbus, OH 43221
614-451-5617 (home)
614-424-4009 (office)
telex 245454 Battelle

January 16, 1988

Robert Edwards - 493 Dale Dr - Erie, PA 16511

Dear Bob,

Wayne Nicoll passed on your letter of January 5, and I thought I'd comment:

- 1) Using the 1000 foot cal course is supposed to reduce the work, not increase it. By using a 15 minute on-site taping procedure I can avoid all the extra work and time associated with transporting the bike back and forth from race course to standard cal course. Not to mention the time saved in riding 1000 ft x 4 instead of 1/2 mile x 4.
- 2) I don't think we need to worry about accuracy too much. My reasoning is that a careful person is well covered by the extra 0.1 percent, and a sloppy person isn't really covered even by a standard, super-accurate cal course. I admit that there would be a small sacrifice in accuracy when a 1000 footer is compared to a 1/2 mile right next to it. But by putting the 1000 footer right on the race site we eliminate a lot of the errors that creep in due to undue time being spent moving back and forth from race course to cal course. It's a tradeoff, and we'll never know for sure, but I think a shortie on-site is the best way to go in almost every case.
- 3) A check on the layout should be made - either a quick-and-dirty laydown of the tape as you walk back to the start point, checking your layout marks, or a bike check of the cal course. A 99 foot vs 100 ft taping error is tough to pick up on a bike check, but this is a pretty unlikely thing for an amateur to do. It's only some experts who like to use the 1 ft mark as their zero. I bought a 100 ft surveying tape that has the zero about 8 inches from the loop end, very nice. Unfortunately, the tape markings end at 103 feet. After getting mixed up a couple of times I now have a piece of duct tape wrapped around my tape at the 100 foot mark. Misreading does happen.
- 4) Since these shorties are typically used for the layout of only a single course it may be overkill to require full-dress procedures. If it's a validation, the layout and checking procedure should be credible, including temperature correction. We do need to find a way to get the info we need as reviewers, since these 1000 footers aren't in the book yet. You can work with your measurers as it suits you for the time being. The next version of the measurement book will undoubtedly have an abbreviated form for measurers to record their layout activity if they use a shortie.
- 5) Next time you get a chance to work with a shortie, I urge you to try. You'll never go back to the longer courses.

Best regards,



REVISED PHOENIX CITY MARATHON COURSE FOR 1988

The original 1988 Phoenix City Marathon course was measured by Pete Riegel and Felix Cichocki on July 11, 1987, and certified (AZ87055PR). However the construction of the Squaw Peak Freeway, which roughly parallels the west edge of 18th St., has closed Campbell at 18th St.

Therefore the 1988 Phoenix City Marathon course is being changed from going West on Campbell from 40th St to 12th St then turning North to Maryland, to be revised to going West on Campbell from 40th St to 22nd St, turning one long block North to Highland, proceeding West on Highland to 12th St, then continuing North to Maryland. This change is in the 14 and 15 Mile point on the course.

The method used was to measure the old route and the new route and then compare to obtain the difference. Measurement would need to start and finish at a common point on both routes. A complication was that Campbell is not passable after 18th St (to 16th St) due to construction. However, since 16th St and 18th St are parallel, readings could be taken on Highland by sighting down 16th St and 18th St. and used for that segment.

Common point "A" was selected at the East edge of the E crosswalk line on the NE corner of 22nd St and Campbell. (The course approaches this point from the East with an approximately 2 Mile straight stretch.)

Common point "B" was selected at the North edge of the N crosswalk line on the NE corner of 12th St and Highland. (The course then continues North from this point for approx 1 1/2 Miles before turning West.)

It should be noted that virtually all streets in Phoenix are straight North/South or East/West.

Measurement of the new route began at Point B, then very shortly at the East crosswalk on Highland the front wheel was locked and the bike carried to the South side of Highland. (The segment along Highland is approx 1 Mile). An intermediate reading was taken even with the straight line curb on the East side of 16th St. Another reading was taken at the straight line curb on the East side of 18th St. (construction was on Campbell between 18th St and 16th St). At the turn to the South on 22nd St (a lightly travelled street) the diagonal was followed to the corner of 22nd St and Campbell and around the corner to the common point A. Total count was 22504.

The old route was now measured from Point A to the straight line curb at the East edge of 18th St (the start of the construction area and not passable). The second measurement of this portion was taken by measuring back to Point A. Both rides were 7601 counts.

The new route was measured a second time by measuring from Point A to Point B which is exactly the reverse of that stated above. Counts were 22503, one less than the first ride.

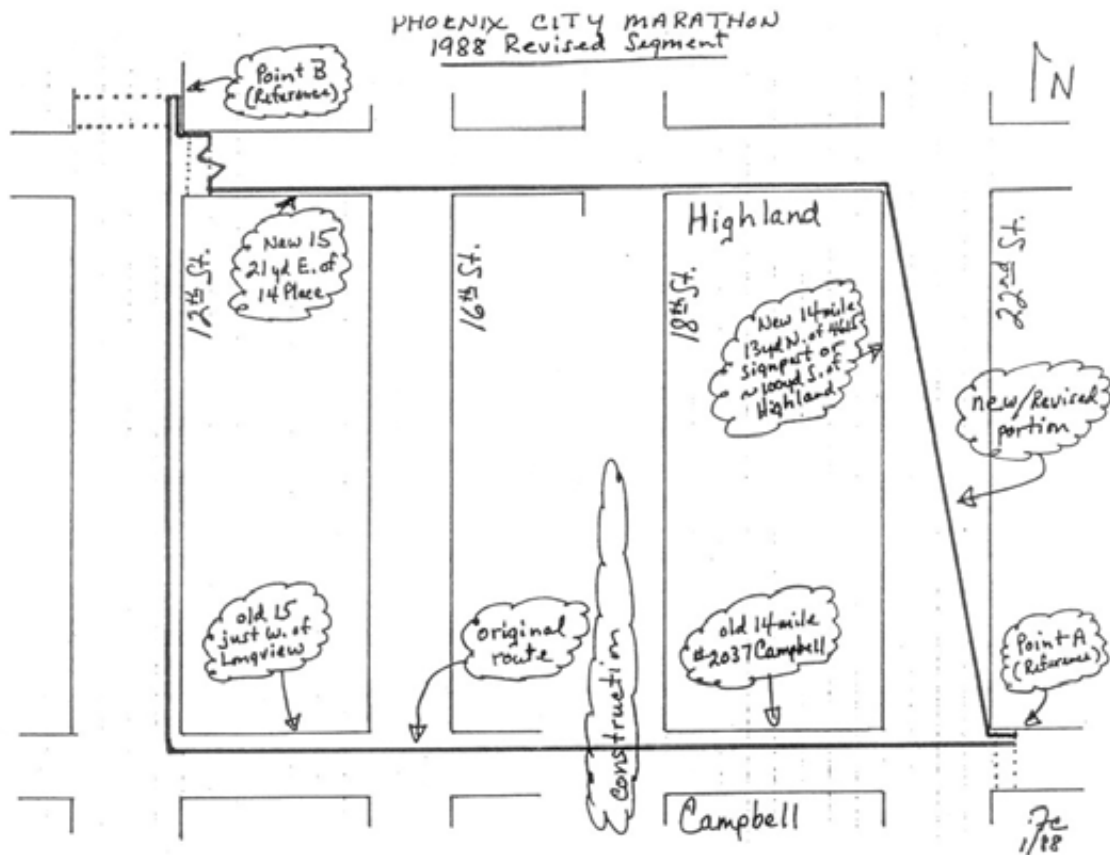
To complete the remaining passable portion of the old route, measurement started from Point B and went South along the East curb to Campbell and then to the straight line curb on the East side of 16th St. The bike was turned around and remeasured for a second time. Counts were 11462 and 11463.

The intermediate readings along Highland that were used to supply the counts from the non-passable segment along Campbell produced counts of 3747.5 and 3748.

Therefore total counts for old route were 22810.5 using the smaller numbers (11462 + 7601 + 3747.5) and 22812 using the larger numbers (11463 + 7601 + 3748).

Comparing the old route vs. the new route counts the difference was 306.5 counts shorter (22810.5 - 22504). Then 306.5 counts were laid out on the road and measured with the steel tape. This was 107.1 ft.

Therefore 107.1 ft was added to the Start to lengthen the course. The new Start location is on Adams 214.5 ft West of the West curb of 18th Ave, or 82.1 ft West of lightpole #8237 (first lightpole West of 18th Ave.), or 109 ft East of the round Railroad Crossing sign, or 31.8 ft West of the West edge of the alley mid-way between 18th Ave and 19th Ave, or the center of the driveway to the AZ Chapter Associated General Contractors (#1825).



Phoenix City Marathon
1988 Revised Course

- 32500 - 12St + Highland NE corner (Point B)
- 40195 - 16St + Highland SE curb edge
- 43942.5 - 18St + Highland SE curb edge
- 51364 - 22St + Highland mid SW corner
- 55004 - 22St + Campbell NE corner (Point A)
- 62605 - 18St + Campbell NE curb edge
- 70206 - 22St + Campbell NE corner (Point A)
- 73841 - 22St + Highland mid SW corner
- 81266 - 18St + Highland SE curb edge
- 85014 - 16St + Highland SE curb edge
- 92709 - 12St + Highland NE corner (Point B)
- 96530 - 12St + Campbell mid NE corner
- 04171 - 16St + Campbell NE curb edge
- 11814 - 12St + Campbell mid NE corner
- 15634 - 12St + Highland NE corner (Point B)

Phoenix City Marathon
1988 Revised Course

new route:

$$\begin{array}{l} (1^{\text{st}} \text{ ride}) \quad 55004 - 32500 = 22504 \\ (2^{\text{nd}} \text{ ride}) \quad 92709 - 70206 = 22503 \end{array}$$

old route:

$$\begin{array}{l} \text{Point B to 16st} \quad 04171 - 92709 = 11462 \\ 16\text{st to 18st} \quad 43942.5 - 40195 = 3747.5 \\ 18\text{st to 22st} \quad 62605 - 55004 = 7601 \\ \hline 22810.5 \end{array}$$

$$\begin{array}{l} \text{Point B to 16st} \quad 15634 - 04171 = 11463 \\ 16\text{st to 18st} \quad 85014 - 81266 = 3748 \\ 18\text{st to 22st} \quad 70206 - 62605 = 7601 \\ \hline 22812 \end{array}$$

Comparing "Old" and "New":

$$22810.5 - 22504 = 306.5 \text{ counts}$$

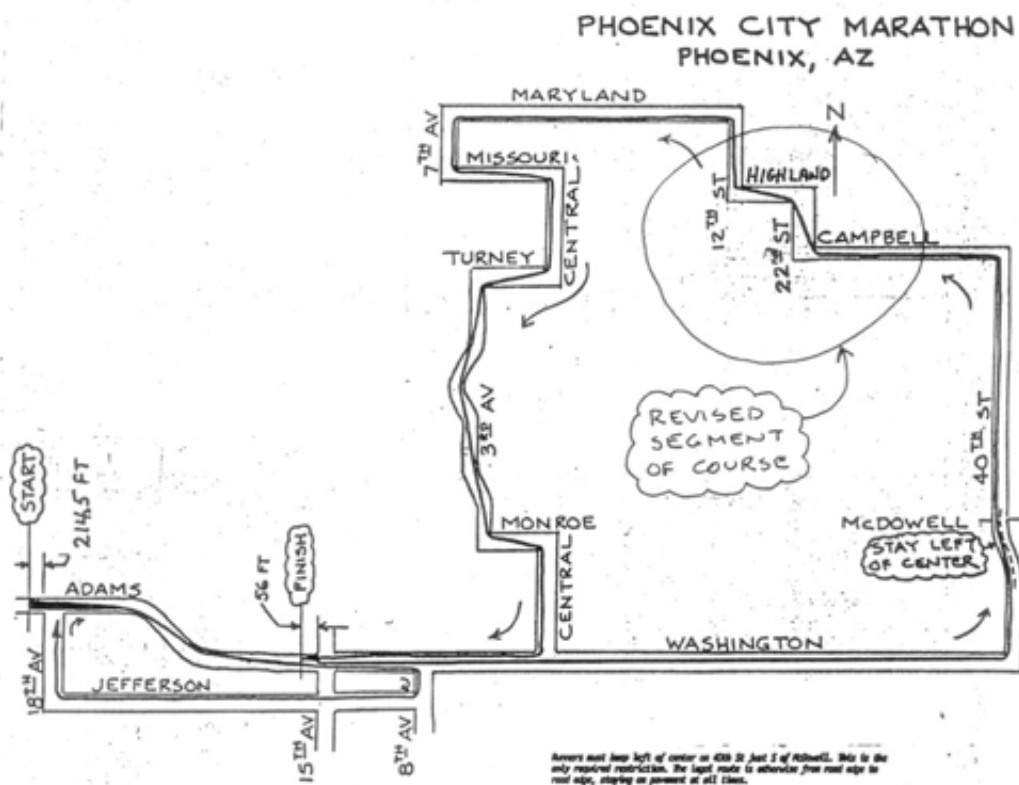
Then laid-out 306.5 counts along road and measured
with steel tape = 107.1 feet

Since new segment is shorter than old segment,
the total course was lengthened by adding
107.1 feet to the Start.

Jc
/100

Phoenix City Marathon 1988 Revised Course

The 107.1 ft difference can be explained by the fact that the old course includes the width of 22nd St. (at Campbell) and ~~12th St (at Highland)~~, while they are essentially ignored or non-existent on the new course.
HIGHLAND (at 12th ST) PR



7c
1/08

COURSE LISTS

Every month we print an update of the latest certified courses. Last year I sent out two fat books of the complete list to the Vice-Chairmen, and kept one for myself. I also sent out a state list to each regional certifier.

In days gone by NRDC published an annual book of certified courses. We can do the same. The question is, is it justified? Judging by the requests for state course lists, there would be little demand for a big fat course book of 100 pages with 5000 courses in it, especially since it will be obsolete the day it's printed. Most would not want to pay what we'd have to charge.

John White and I are in a quandary about this. Is there any interest in a giant book out there? Or should we just stand ready to send state lists upon request? Should we print a one-time-only book of courses certified up to January 1987, and then print smaller supplements? This would divide the course list into two or more parts, which is not handy.

We are presently coping with the demand for course lists, and maintaining the status quo is not difficult.

RRTC people may have state course lists free upon demand. Just let Pete or John know what you want. Other people can have state lists, but they will be sent along with a bill. The bill will be \$.50 per page, with a minimum charge of one dollar. How big is the list for your state? It depends. The longest state list we have is California, and it's ten pages at present.

Those with the right computers can get the whole course list on two 5 1/4 inch floppy diskettes. It will be in IBM/DOS format, or in WordPerfect (your choice) which you can tweak into your favorite word-processing language for whatever purpose you have in mind. If you want these diskettes, send \$5 to Pete and say what you want.

MEASURING COURSES WITH AN AUTOMOBILE

In the last MN David Reik mentioned that the use of an automobile would not be suitable for measuring to certification standards, because of its inability to conform to the Shortest Possible Route. This is true. It is equally true that the layout of a 100 mile point-to-point course would be a horrendous job using calibrated bicycles. But people do run on these courses.

The inquiry into the use of a calibrated automobile was simply to gather information on a potentially valuable way to measure. We should keep open minds for all the new ways we can find. Our bicycle procedures are the best we've got at this time, but who can tell what the future may hold? We should not dismiss a potentially valuable measurement tool before we see what it can do.

So far Mike Renner and Mike Wickiser have sent in some dope. There's nothing conclusive in it, but the more we get, the greater the likelihood that something of value may evolve from it.

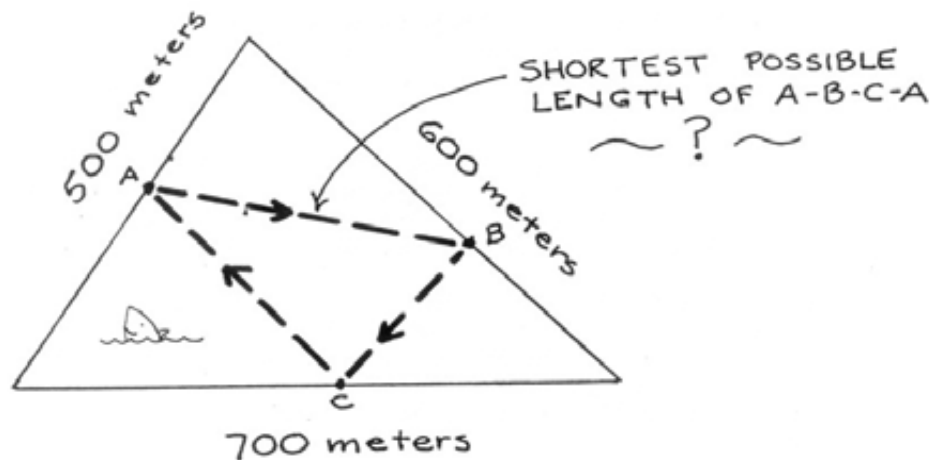
PUZZLE PAGE

SEND IN
YOUR OWN
PUZZLE!

FIND THE SPR AND WIN A VALUABLE PRIZE!

RRTC has been contacted for an unusual task. A contractor has built a high-priced vacation housing development around the shores of a small, scenic triangular lake. He wants to visit construction sites on each shore, by using his workboat to get to a dock on each of the three shores. To keep his gas costs and travel time to a minimum, he wants the course to be as short as possible. He needs to know where to put his docks. Since he understands that we RRTC types are experts at finding the shortest possible route between things he wrote to me asking for help.

Here is a sketch of the lake. As you can see it has sides of 500, 600 and 700 meters. Where should the docks be located to make the triangular path between them be the shortest possible route?



I am frankly stumped. How can we help? He has offered what he describes as a "valuable prize" to anyone who can give him the answer to his troublesome and perplexing question.

Please send to Pete Riegel:

- 1) Your solution to the shortest path. What is the minimum distance?
- 2) Where should the docks (points A, B, C) be located?
- 3) Why do you think your solution is shorter than any other?

The best solution to this problem will receive:

- 1) A NEW CAR OF YOUR CHOICE, or
- 2) An all-expenses-paid vacation for two for a week in Paris, or
- 3) Another valuable prize.

The lucky winner will be announced in next MN.



TAC/RRTC
HEVIN P. LUCAS
Texas Regional Chairman
3050 RAMBLING DRIVE
DALLAS, TEXAS 75228
(214) 320.8359

January 7, 1988

TAC/RRTC
3354 Kirkham Road
Columbus, Ohio 43221

Attn: Peter S. Riegel, Chairman

Dear Pete,

Thought I would drop you a note regarding your comments in your 12/21/87 letter (enclosed copy) to me and in Road Race Management (RRM) January 1988 issue. Your comments were about the issue of race course ownership.

Note: RRM- "The RRTC decided to take NO action to "protect" the privacy of certified course maps from other groups wishing to use the same course. Race ownership questions should be resolved somewhere else, chair Pete Riegel feels..."

I think some simple policies should be adopted. To disregard the race director or organization he or she represents which has a course measured for TAC/RRTC Certification is not a good position in my eyes. The Measurement Certificate is clear documentation of ownership. We (RRTC) should honor that certificate as should other races.

I have made it a policy in Texas to issue a second Measurement Certificate on the same course for a second owner or race name. This practice is simple and straight forward. Each group can state their race course is Certified to be Accurate by the TAC/RRTC (with their own I.D. Code #).

I do stress that the original group owns the course. They have paid for a measurer or taken the time to measure the course for TAC/RRTC Certification. That act in itself denotes ownership.

That original group can make the decision if another race can use the course and in effect use their already certified course. Of course, at that time another measurement certificate is issued with the second owners name.

To let another race director or organization run their race on their course and be considered TAC/RRTC Certified would open up a can of worms.

Let's say you certify, measure and mark a marathon course(a lot of work). And now Joe Race Director says "hum, a ready to run, certified marathon course" and then decides to have his marathon race on it. I am sure that action would get anyones dandruff up.

It's like computer programs. They are protected by laws of copyright. Or musicians and songwriters get a percentage of their work when others use it. In our case I stress an agreement between the original director and the director wanting to use the course. Even if he wanted some money for "use rights" he should be able to get it.

As for enforcing this policy, when someone complains about another group using their course, we as certifiers will hear about it. We simply point out our policy. If there is cooperation between the groups we have no problem.

Let's stop putting off making some policy on this issue. I see this as a "cut-n-dry" issue. I have had very good success with the above position here in Texas. I am sure the rest of the U.S. would also be successful. You only seem to complicate matters by suggesting a single I.D. Code number of a single name as a track. We can make all parties happy if we have some policy to fall back on.

Regards,



Kevin P. Lucas

cc: Wayne and Sally Nicoll
RRM, Phil Stewart

WAYNE B. NICOLL
Ragged Mountain Club
Potter Place, New Hampshire 03265
(603) 224-0413
(603) 735-5284

14 January 1988

Peter S. Riegel
3354 Kirkham Rd
Columbus, OH 43221

Dear Pete,

Just read Kevin Lucas' letter dated 1-7-88 on the subject of ownership of certified courses. When I read the comment in the latest issue of RRM that you felt the matter of course ownership should be resolved somewhere else, I asked myself, "Where is that somewhere else?"

I think the concept of course ownership is a little hard to accept when one thinks of it in terms of the physical aspects of the course itself. It was not until I accepted the fact that the documentation, and the specific data contained therein, constitute the basis of ownership. When described in these terms the situation is not unlike the examples of ownership of music or computer programs as suggested by Kevin.

A few years ago I was directing a major footrace as a club volunteer. I repeated in the role of director for several years and each time I grew more suspicious that the sponsor, a local bank was preparing to wrest complete control of the event from the track club. We hired a smart lawyer who found a precedent—a big bucks sponsor in Atlanta tried to snatch the Chattahoochee River Raft Race from the original organizers—some little guys. The organizers sued and won. Our lawyer arranged to have the name of the event registered at state level clearly in the ^{type} of the local track club, which he felt was adequate protection in the event the bank made a move on us. I know it is not quite the same—we were dealing with the event rather than the course—but I think it points out that "ownership" is a valid concept. I feel we should be involved in protecting the original ownership.

I have had two cases of a second party using a certified course and advertising it as such. Neither was a "hostile takeover". I encouraged the two parties to negotiate, they did, I was satisfied and I requested that the second race name be added to the course list. We used the same course number but it might be less confusing to issue a new code number.

We cannot physically prevent another group from using the course unless we could convince the city not to issue a permit for the event. But TAC/USA can deny any records set in a race that is not listed. I really do not feel that we need to do much more than Kevin and I are doing now. Maybe our suggested procedure for multiple use deserves a little publicity.

Cheers,


Wayne B. Nicoll

cc: Lucas, Stewart

THE ATHLETICS CONGRESS
OF THE USA

Road Running Technical Committee
Peter S. Riegel, Chairman

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January 25, 1988

Wayne Nicoll - c/o Ragged Mountain Club - Potter Place, NH 03265
Kevin Lucas - 3050 Rambling Dr - Dallas, TX 75228

Dear Wayne & Kevin,

COURSE OWNERSHIP

I got Wayne's letter last Friday after talking with Kevin about the subject. I don't think we have a substantial disagreement on much of anything.

We all seem to agree that it is - at the very least - bad manners to use someone else's course without asking if it's OK. I can see a race director getting pretty mad when someone uses his course for another race without permission. The question I think we are trying to answer is "Should RRTC jump into the fight when it happens?"

You both have been making efforts to issue new certificates after checking with all involved in order to head off possible problems. This, I believe, is entirely appropriate. It's also appropriate to attempt to smooth over bad feelings that may arise.

When the two parties can't get smoothed over, and things have gone too far, the following scenario might arise: Some results are sent in to TACSTATS, and the name of the course is one that doesn't match the results, although the certificate sent shows that the course was certified. Race director A is furious because director B used the course that A paid to have measured and certified. Should TACSTATS accept the results from B? What if B doesn't care about sending things to TACSTATS and just wants to put on a race? What about disappointed athletes who may set record times? Should they have to pay a price in the dispute?

Or, a week before the Podunk City Classic somebody else decides to put on a race using the same course? As soon as the advertising hits the street the PCC folks would be hopping mad and would want to stop the other race from messing up their plans. Is there something RRTC should - or can - do?

The certificate that RRTC issues clearly shows who is the race director, what is the course, and who measured it. What is less clear is who should resolve such "ownership" disputes when they arise. Whoever does it should be a body with enough clout to settle the matter. I can see situations where we or the local certifier get drawn into one of these brouhahas, and recommend that something be done (such as director B paying a fee to director A). Then B says no way. What, then, do we do about it? I can see where the local TAC sanctioning people could get into the act as well. And maybe TACSTATS as well. The whole thing is a potential can of worms.

Suppose somebody gets a map of the PCC course, and then measures it independently, and gets it certified? Should we do anything about it? Would we even be aware that the course was certified under another name?

When people really get mad they can take one another to court. The documents we produce would help establish who got there first. The value of the course can greatly exceed the money paid to measure it. I know of no way RRTC can - or should - make this valuation. My own preference would be to let the law courts handle this if it can't be settled amicably. They were designed for the settlement of disputes, and I doubt that things would go that far in most cases. Nobody in his right mind wants to go to court. Whoever chooses to go would have the certificate as his evidence as to who paid who, and who owns what.

It's pretty clear to me that using somebody's course without permission is a turkey thing to do. Perhaps just publicizing what happened would be a way to discourage people from doing this sort of thing.

Do we certify anything beyond the length of the course? Are we also certifying the ownership of the course? I'd personally prefer that we are certifying only the distance along a specific path. I know in my own region it's not uncommon for a given course to pass through several sets of hands as directorship of a given race changes. What does TACSTATS do when they get a record application for which the name of the race does not match that on the certificate? I'm sure this must happen once in a while.

I don't have strong objections to RRTC taking some role in this, but if we do it, it should be something we can do without complicating our day-to-day operations unbearably. So far it seems to be a small problem, not yet requiring a massive solution. I'd hate to have to delay certification on lots of non-problem courses while I wait for information to come back from another source. Many courses are no longer in use by the original organization, and there may not even be anybody who minds if somebody uses the course.

Seems to me if we are to do something about this we need to have something clearly outlined. Why don't the two of you hammer out something specific as a course of RRTC action? The issue is not something I care to jump into right now, although I'll gladly help out on the edges. My gut feeling is that it ought to be kept as local as possible and not become a bigger deal than the situation warrants. Do we have a big problem? Could it be solved by some fine print on the certificate?

As I see RRTC, we're primarily a technical group dealing with the facts of distance and time. We also produce information that can be used by others to establish things like "ownership". I can see something like this as requiring a TAC rule, rather than an RRTC policy. Want to write a rule? The ramifications of this could be awfully far-reaching, and maybe beyond the power of TAC alone to resolve.

This issue was aired a bit in the January MN, and maybe we will receive some feedback. I'll put both your letters in the March issue to keep the pot boiling.



xc:TACSTATS, Chriss



TAC/RRTC
KEVIN P. LUCAS
Texas Regional Chairman
3050 RAMBLING DAVE
DALLAS, TEXAS 75228
(214) 320-8359

February 16, 1988

TAC/RRTC
3354 Kirkham Road
Columbus, Ohio 43221

Attn: Peter S. Riegel, Chairman

Dear Pete,

I was so glad to see that Phil Stewart added our (mine, Wayne Nicoll's and your) comments in Road Race Management's (RRM) "Letters" section. Hopefully it will spur on some others to comment. I wished that Phil did not list Wayne and I as "RRTC member". Wayne is Eastern U.S. Chairman and I am Texas Regional Chairman. This carries more weight I think, i.e. "Pete Riegel, Chairman, RRTC". But we did get the space in RRM which is the big plus.

In your 01/25/88 letter to Wayne and I you outlined a "wonder if scenario". I don't know about Wayne but I have not run into some turkey using someone else's already TAC/RRTC certified course. What I have run into is about 4 or 5 groups that wish to use an already TAC/RRTC certified course as suggested to them by the original owner (measurer/director). The second group had already spoken with the original owner and viewed this as a money saver not to have to pay someone or take the time to measure another course for TAC/RRTC certification.

This second group does need something in writing like the original owner thus a new Measurement Certificate with the race name, director, race date and I.D. Code # changes.

Issuing a new certificate gives this second race something to hang on to. It keeps records straight, i.e. times run in XYZ race on the same XYZ course. Very simple and everyone is happy.

If some "bozo" uses an already TAC/RRTC certified course someone else worked for it is just plain wrong. That "bozo" should seek permission or measure a new course period. This is where requiring a Measurement Certificate issued for each race run on a course comes in.

The people I have worked with were very happy to see their course get multiple use. So were the police.

You ask what does TACSTATS do when they get a record application for which the name does not match that on the certificate, well, as in the Run Against Crime 15km - TX 83038 RL course, a new Measurement Certificate was issued with I.D. Code # and race name changes(El Paso/Juarez International Classic - TX 87020 TK). Again, just a simple formality everyone gladly uses and benefits from.

What to do? You had an idea of "adding some fine print on our Measurement Certificates", that's a good one. Or simply issue a new certificate like Wayne and I have been doing. A TAC rule for something that only effects a small percentage is not necessary in my eyes. Maybe add on the certificate under "Be It Officially Noted That", if a second, third or other race uses this course a new certificate must be issued in that race's name.

Again, lets stay away from "wonder if's" and work with what we have in front of us.

Regards,



Kevin P. Lucas

January 29

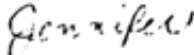
Pete Riegel
Wayne and Sally Nicoll

BAUMEL

And I'll need to send a copy of this to Bob again. I just read Bob's account of the validation of Bloomsday. Without going into a long discourse, it was my impression that a validation measurement is NOT made of the course as it was certified but is made of the course as IT IS AVAILABLE to runners on race day. If one is going to simply remeasure a course as it was originally measured for certification, then one is not validating the race day course at all. By the same reasoning, if a runner in a track meet steps on the curb or enters his/her neighbor's land on the inside, s/he is disqualified yet Bob would allow the runner to remain (and presumably the runner's mark to stand) because the track was certified to begin with and most of the runners ran as they should have?

cc: Bob Hersh
TACStats

Sincerely,



Jennifer Hesketh Young

MEASURING A RACE COURSE WITH A BICYCLE

Almost all modern road racing courses are measured using calibrated bicycles. The bicycle is used because it is fast, and it's accurate enough to do the job. It can be looked at as a human-powered, fast-moving measuring wheel.

Where does calibration come in? Simple. In order to use a wheel to measure, you have to know how far you go each time it turns. This is done by riding the bicycle along an accurate known distance, counting the wheel revolutions, and using arithmetic to figure out the distance covered in each revolution.

Although the basic concept is simple, the procedure is somewhat more complicated. The hardest part - keeping track of revolutions - is solved by mounting a "Jones Counter" (named after inventor Alan Jones) on the front bike wheel. The counter records 20 "counts" each time the wheel revolves one revolution. Thus one count - for a standard size bike - is about 1/15000 mile or 1/10 meter or 4 inches.

To calibrate, the rider uses a steel tape to lay out a calibration course - some straight distance greater than 1000 feet or 300 meters. The bike is ridden on the calibration course and the number of "counts" required to cover the distance is noted. Then arithmetic is used to calculate how many counts are required to cover one kilometer or mile. This number is called the "constant".

With the constant known, the measurer starts at one end of the race course and rides until he has covered enough counts to make up the full distance. He then adds a safety factor to assure that the course isn't short. For a numerical example:

- 1) The measurer lays out a 500 meter calibration course with a steel tape.
- 2) He rides the bike over the calibration course and gets 4800 counts for 500 meters.
- 3) He calculates his constant at $2 \times 4800 = 9600$ counts per kilometer.
- 4) Since he wants a 10 kilometer race course, he rides his bike until he has covered 96000 counts, at which point he has covered 10 kilometers.
- 5) He adds 10 more meters to the course as a short-course prevention.

The above is greatly simplified, and the exact procedure is spelled out in a book, Course Measurement Procedures, which is available from:

TAC/USA - Book Order Dept - PO Box 120 - Indianapolis, IN 46206

Price of the book is \$4.00 (US) postpaid.

The TAC procedures have been substantially adopted by AIMS and are very likely to be adopted as well by IAAF.

3717 Wildwood Drive
Endwell, NY 13870
February 29, 1988
(607) 754-2339

Peter S. Riegel
3354 Kirkham Road
Columbus, OH 43221

Dear Pete,

Here is my March column. However, I have to admit I wasn't as inspired this month (besides being very busy) and only have a single page.

I feel very strongly that you should publish Ken Young's letter. It explains the thinking behind the validation more clearly than I have seen in recent correspondence. However, it also illustrates the confusion among the measurement community, including Ken, on the TAC rules on validation. As the rules state, the validation must SHOW the course short or the record holds. Ken has turned this completely around and says that the rule states that the validation must SHOW the course to be at least as long as stated in order for the record to hold. If this interpretation were used, one would have to have the validation end up about 1.005 times the stated distance to SHOW it is at least the right distance. I realize that Ken is the author of the rule. Ken's letter probably states what he intended the rule to say but reading of the rule does not say what his letter says.

I suggest you publish his letter along with a verbatim statement of the rule.

As another example of the confusion, take a look at Basil Honikman's recent article "Acknowledging Negative Tolerance" in the January/February 1988 issue of TACTIMES. In the article he states, "The TAC rule concerning the validation remeasurement requires that the remeasurement 'SHOWS' that the course is at least the stated distance." You read me the rule over the phone and this is NOT what it says. Right? Then later in the same paragraph Basil states, "With the use of the word 'shows', the measurer should be able to rest assured that even if the result of the remeasurement is 99.99% of the stated distance, it has not shown the course to be less than the stated distance." I believe that this latter quote interprets the rule correctly. That is, if a 10 Km course comes up 1 meter short on a validation, the validator has not shown the course to be short. However, if it ends up 6 meters short, since the accepted accuracy of the method is 0.05%, it would be shown to be short (unless there were some extenuating circumstances).

RULE 185

RULES APPLICABLE TO LONG DISTANCE RUNNING EVENTS

3. Road running performances made prior to April 1, 1981, may be accepted as records if the remeasurement shows the actual course distance to have been not shorter than 0.5% of the stated race distance. Performances made between April 1, 1981, and December 31, 1983, may be accepted if the remeasurement shows the actual course distance to have been not shorter than 0.2% of the stated race distance. Performances established between January 1, 1984, and December 31, 1984, may be accepted if the remeasurement shows the actual course distance to have been not shorter than 0.1% of the stated race distance. Performances made after January 1, 1985, will not be accepted if the remeasurement shows that the actual course distance was shorter than the stated distance.

Sincerely,



Alan Jones

Bob Hersh, chairman
TAC Records Committee
92 Club Dr
Roslyn Heights NY 11577

15 February 1988

Dear Bob,

I don't know where Pete Riegel and Bob Baumel get all the time they spend on correspondence; I know I certainly do not have the time to write dozens of letters repeating myself over and over. It is also curious to read how various people erroneously predict how I would interpret rules or what my reaction would be in particular circumstances. I can only surmise that such people really haven't paid much attention to the manner in which I carried out my duties as record keeper for LDR.

Of all the correspondence I have seen over the past few years on this subject, yours is the most reasonable. "Correspondingly," I will present my views by writing to you. The real responsibility for records lies with you as Records Committee chairman, regardless of what is decided by the RRTC.

First, I am the last person to follow rules to the letter, simply because there are rules. My philosophy is and always has been that rules are a GUIDE, not an absolute and inviolable statement. Hence, a mark submitted for ratification with a validation "showing" a distance less than the stated distance, and with extenuating circumstances, is certainly worth discussing. It should NOT be rejected out of hand.

Why do we have a rule book? Rules serve not only to settle disputes but to provide a guide. In the case of records, imagine how much work it would be to ratify records if we did not have rules to guide us. Each mark submitted would have to be discussed individually, a process that could take all week rather than the few hours the Records Committee spends each year in session.

The rules allow us to clear a great many marks simply because most of the record submissions meet all the stated requirements and there are no unusual circumstances which throw doubt on the validity of the mark. Thus, the main function of the rules (which I wrote) governing record-keeping for LDR is to provide a set of criteria such that, IF a submission meets all of the stated requirements, AND there are no unusual circumstances, THEN the mark may be accepted by the Records Committee without further discussion.

The argument lies not in the range of acceptance as defined by the existing rules. The argument is to extend the range of acceptance into a realm where there is real disagreement. At present, EVERYONE agrees that marks which "pass" the rules are acceptable. If the rules are relaxed, marks may be "passed" for which this unanimous acceptance will be lacking, i.e., people will argue that such-and-such mark should not have been accepted. This will tend to cast doubt on the entire record-keeping process.

There are two categories of record submissions. There are submissions which meet all the stated requirements and warrant acceptance as records. There are submissions which do not meet all the stated requirements or for which there are unusual circumstances and these should be discussed by the Records Committee.

Within this latter group, there are submissions which are clearly deficient and the applicant should be strongly advised against pursuing the submission. The 1981 New York City Marathon is an example of a clearly deficient mark that was submitted, discussed, and rejected by the Records Committee. Note that, EVEN THOUGH this mark was clearly deficient, it was still considered by the Records Committee. In other words, just because a mark "fails" the validation test does not preclude its submission, discussion, and possible acceptance as a record.

This leads me to two important topics which seem to be completely misunderstood by a good many members of the RRTC. The first topic deals with the PURPOSE of a validation. Simply stated, a validation is intended to be a report on the technical conduct of the race as pertains to the record submission(s).

A validation usually includes an examination of the race course and may also include an examination of the timing and finish line procedures. These two latter points are usually covered adequately in the original submission or via correspondence. However, the validator should be alert for problems of false starts, failure of operators of the official timing devices to have a clear view of the starting line, failure of same to have a clear view of the finish, failure to have a clearly marked finish line for timing purposes, and a myriad of other potential problems. In other words, the validator SHOULD BE very familiar with the Finish Line Manual. Simply being a good measurer is not sufficient.

The measurement portion of the validation is intended to provide information on the length of the course as it was available to runners during the race. It is recognized that most races do not follow the course EXACTLY as it was measured for certification. It is felt that "small" deviations from the EXACT course should not penalize the runner UNLESS those deviations serve to shorten the course "significantly."

The 1984 Philadelphia Half Marathon is a good example of the latter problem. George Delaney supervised the validation measurement since he had been part of the original measurement and I felt it would be preferably if he did not perform the measurement himself. The original measurement used two lanes going out (East River Drive) and two lanes returning (West River Drive).

On race day, the number of lanes available to the runners varied from one lane in places on up to four lanes in other places AND was different for the front runners compared to the mid-pack runners. George ran the race not more than five to ten minutes behind Joan Benoit whose mark was being examined. George was instructed to measure the course AS IT WAS AVAILABLE to Joan.

The crucial point here is that the validation is NOT an examination of the original measurement. The validation is an examination of the course as available to the runner(s) on that particular day. This is why a validation is not valid from year to year and a certification generally is considered valid for more than one year.

The validation is a PORTION of the evidence submitted for consideration of a road mark as a record. The Records Committee is not interested in how good a measurement went into the certification. The Records Committee IS interested in what went on during the race and just what the length of the course available to the runner in question was. Part of the validation report SHOULD BE a description of problems, extenuating circumstances, and the magnitude of errors or "unknowns" which may affect the decision of the Records Committee. You may wish to refer to Tom Knight's report on the New York City Marathon validation as a good example of what a validation report should contain.

The validator is a technical person, engaged in gathering evidence. The validator is NOT a judge of the validity of the mark. The Records Committee judges the validity of the mark. Ideally, the validator should say NOTHING to the race director and report directly to the Validations Chairperson of the RRTC. This report should then be forwarded to the designated record-keeper and only then should a public statement be made. The statement should be either (1) the submission meets the criteria stated in the rule book for acceptance of records, or (2) the submission does NOT meet the criteria for acceptance as a record.

In the real world, it is almost impossible not to tell the race director what the numbers are, i.e., what is the length of the course as best determined by the validation measurement. Note this is not to imply this is a "true" course length. We know that we can never know the "true" course length. Unfortunately, we have great difficulty in conveying this concept to the lay person. The resulting measurement, in actuality, is a "working length" that is part of the evidence submitted to the Records Committee.

The race director should be told one of three things. If the validation measurement yields a numerical value of the course length greater than the stated record distance the race director should be told, "The validation measurement meets the rule book requirements and I see no problems with this mark being accepted."

If the validation measurement yields a numerical value well short of the stated record distance, the race director should be told, "The validation measurement suggests the course length is substantially short. I recommend that the submission be withdrawn."

If the validation measurement yields a numerical value that is "slightly" short and/or there seem to be extenuating circumstances, the race director should be told: "Although the validation measurement does not meet the rule book requirements, neither does the measurement prove that the course is short of the stated record distance. Since the burden of proof lies with the submission, it is not likely that the mark will be accepted by the Records Committee. If you feel there are extenuating circumstances, you may include these with my report for consideration by the Records Committee at its next meeting."

Note that in each of these scenarios, the validator is not the judge. He or she is only stating what the measurement findings mean to the race director. The actual decision is left to the Records Committee, where it belongs.

My second topic deals with philosophy and what a record is supposed to mean. Very simply stated, a ratified record is a statement that a particular runner ran AT LEAST the stated distance WITHIN the time stated, beyond a reasonable doubt. Notice that this statement implicitly recognizes the fact that we cannot know the "true" distance nor can we know the "true" time. However, we can establish, beyond a reasonable doubt, that the runner did run at least a stated distance within a stated time.

In the case of the record time, we use the middle of three watches AND, for road records, we take all non-zero fractions UP to the next full second. In this manner we feel, beyond a reasonable doubt, that the runner did NOT run slower than the stated time and in fact, we feel that the runner ran at least as fast as the stated time. Note that we are not trying to prove the runner DID NOT run as fast as claimed, rather we are trying to prove the he/she DID run as fast as claimed.

Similarly, in the case of the record distance, we are NOT trying to prove that the runner did not run the full distance. The burden of proof lies with the person submitting for the record. Proof that the runner ran AT LEAST the stated distance is required. If we can prove that he/she ran at least the stated distance, then (presumably) everyone will be satisfied that the mark is a valid record.

An illustrative example is the Rosemont 10K in which Joan Benoit ran a mark which bettered the listed American mixed race record. In this case, the validation measurement yielded a value greater than 10,000 meters, i.e., the mark "passed." However, this mark was rejected by the Records Committee because a reasonable doubt was raised as to the location of the turn-around point and no incontrovertible evidence was available to resolve the question. Here is a case in which a mark could not be proven valid beyond a reasonable doubt and was rejected. Note that the Records Committee did not feel it necessary to prove the mark invalid.

If we cannot prove that the runner ran less than the stated distance AND we cannot prove he/she ran at least the stated distance, then we cannot meet the basic requirement of a record. We cannot state that the runner ran at least the record distance within the stated time.

In statistics, these are called errors of the first kind and errors of the second kind. Here, the error of the first kind is calling a mark a record when in fact it is not. The error of the second kind is in not calling a mark a record when in fact it is. Statistics recognizes that the available data may not be adequate to prove (to within a prescribed probability) one or the other, i.e., to resolve the situation. In other words, we may not be able to prove a mark is a record AND we may not be able to prove that it is not a record either.

The question then becomes, is it better to reject a possibly valid mark or is it better to accept a possibly invalid mark? A jurisprudential analog is the question of convicting an innocent person as opposed to letting a guilty person go free. Our society feels rather strongly that only those persons PROVEN guilty beyond a reasonable doubt belong in prison. I feel, also rather strongly, that only those marks PROVEN valid beyond a reasonable doubt belong in the record book. To expect less will only diminish the value of the records.

In summary, LEAVE THE RULES ALONE. They work! They produce records that everyone agrees are valid records. If you come up with a validation measurement that is short by a "smidgen," submit it anyway together with a logical argument why this mark should be accepted. For the very few cases that will fall into this category each year, the Records Committee can deal with each on a case-by-case basis. This is the reason why the rules were written as they were.

Sincerely,

Ken Young

THE ATHLETICS CONGRESS
OF THE USA

Road Running Technical Committee
Peter S. Riegel, Chairman

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Columbus, OH 43221
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February 22, 1988

Ken Young - 4145 E 6th St - Tucson, AZ 85711

Dear Ken,

I have read your excellent piece concerning validations and it, like many of the other pieces I have received, makes a great deal of sense. Still, there are some things which may not be clear to you, and since I started this thing I owe it to you to make them clear.

The effort to bring in a small AEVM is absolutely not an effort to wrest the decision-making process from the Records Committee. The whole thing is intended to be an in-house RRTC effort to interpret the word "shows" in Rule 185.3. There remains a clear consensus that a small allowance is proper in order to provide some degree of certainty, as the rule seems to imply.

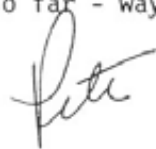
As things seem to be going, we are zeroing in on a very small, well-defined zone that would have an absolute allowance, amounting to 0.05 percent. This zone would include any validation ride that is performed in a "standard" manner with no unusual circumstances. 4 precalcs, one ride, 4 postcalcs.

In the above case, any 10k would "pass" if it measured out to 9995 or greater, as far as RRTC is concerned. If any other circumstances accrue to the measurement, then the subject gets thrown open to discussion. Tom Knight's validation of the PNAC Racewalk loop indicated a tiny shortness in the loop, but several other rides using other calibration courses and tires indicated a greater distance. After some discussion, Sally OK'd the course.

Tom was able to gather the extra data only because of the shortness of the loop (2500 m). If it had been a marathon it is questionable whether he would have had the time or energy. Under the new guideline, to be used only by RRTC, including the Validations Chairman, his first standard ride would have been enough, and the course would be considered by the Validations Chairman to have passed. If it failed (or passed), he'd be free to gather other data, thus throwing interpretation open to RRTC discussion.

Once the validation is complete, and the Validations Chairman reports the result to TACSTATS, the report would merely need to say "In accordance with TAC rule 185.3, the course was (was not) shown to be short and is therefore considered unacceptable (acceptable)". Then TACSTATS takes it from there. No actual measurement information need accompany the record submission from that point onward. Determination of the meaning of the actual measurement as it relates to 185.3 is retained as an RRTC responsibility.

Since nobody's long letters on this subject have been in MN so far, I won't be including yours. Circulate your views as you wish to the players. My file on this is 2 cm thick so far - way too fat for MN.



THE ACID TEST

for finding out how accurate you are

SO, YOU THINK YOU'RE A GOOD MEASURER?
OR, MAYBE YOU'RE JUST CURIOUS TO SEE HOW
ACCURATE YOU ARE? OR HOW ACCURATE YOU
CAN BE?

NOW THAT ROAD RACING IS ATTEMPTING TO ACHIEVE
THE SAME DEGREE OF CREDIBILITY ATTAINED BY
TRACK, IT IS TIME THAT WE "MEASURED UP".
WE NEED TO TEST OUR ABILITY TO PERFORM
SURVEYS ACCEPTABLE FOR TRACK RECORDS.

HOW? BY TESTING OUR MEASUREMENTS ON AN
EXTREMELY ACCURATE SLALOM TEST COURSE,
A COURSE WE CAN CREATE CLOSE TO HOME.
AND WHERE IS THAT? ON YOUR OWN LOCAL
440 YARD TRACK OVAL! USING TRASH CAN LIDS!
(AND A STEEL TAPE TO LOCATE THE LIDS EXACTLY).

THE FIRST STEP IS TO FIND A 440_y TRACK THAT
IS PAVED, HAS A 2-INCH-HIGH CURB, AND 330-FT
STRAIGHTWAYS. (IT IS ADVISABLE TO CERTIFY ITS
LENGTH BY STEEL TAPING THE CURB LENGTH, AND
ADD $2\pi r$, TO DETERMINE THE LAP LENGTH). THE
ATTACHED SLALOM DESIGN ADDS 78.07 FEET TO
THE LAP LENGTH.

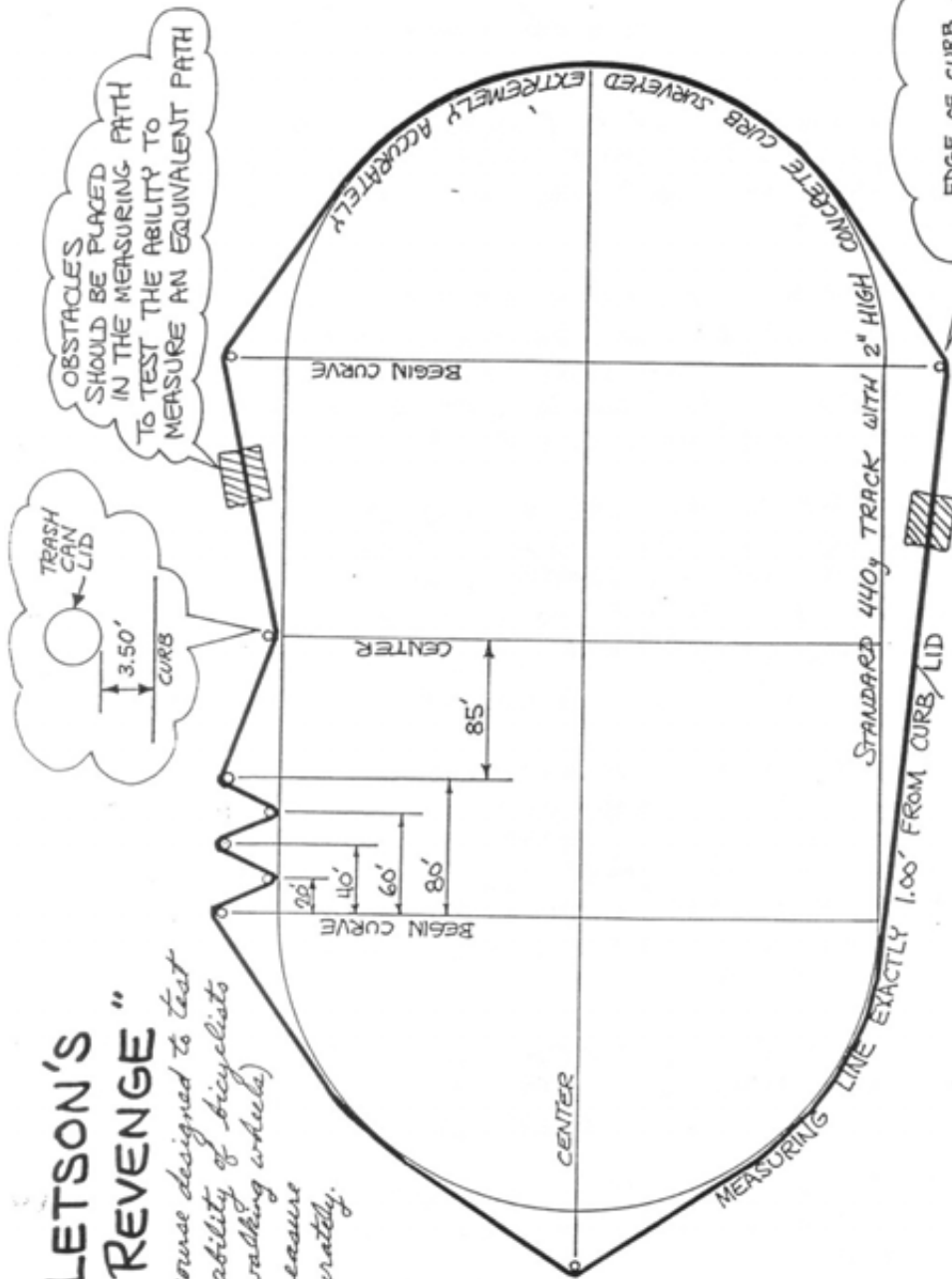
NEXT, FIND NINE (9) TRASH CAN LIDS (DIAMETER=22"),
AND USE A MEASURING TAPE (STEEL) TO POSITION THEM
EXACTLY AS SHOWN IN THE FOLLOWING DIAGRAM.

FINALLY, YOU CAN MEASURE THIS CIRCUIT VIA CALIBRATED
WHEEL METHODS, AND SEE HOW CLOSE TO (LAP+78.07')
YOU COME.

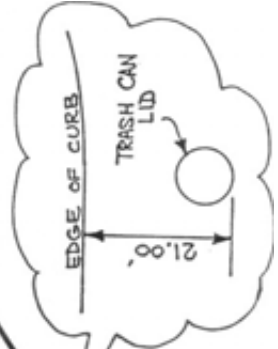
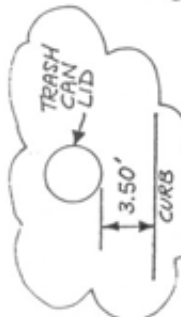
designed by R.A. Letson

"LETSON'S REVENGE"

A course designed to test the ability of bicyclists (or walking wheels) to measure accurately.



OBSTACLES SHOULD BE PLACED IN THE MEASURING PATH TO TEST THE ABILITY TO MEASURE AN EQUIVALENT PATH



USE 9 TRASH CAN LIDS (DIAMETER = 22 INCHES). THIS CONFIGURATION TESTS 12 BEELINES WITH VARIOUS LENGTHS AND TIGHTNESS OF TURNS.

INTERNATIONAL MEASUREMENT SEMINAR

The first TAC International Measurement Seminar was held in Miami on the afternoon of February 19, 1988. Present were John Disley (England), Helge Ibert (Germany), Frank Greenberg, Alvin Chriss, Alan Jones, Basil Honikman, Wayne & Sally Nicoll, Pete & Joan Riegel, Phil Stewart, Mark Courtney, Shelley Ralston, Dan Brannen, Fred Shields, and Doug Loeffler.

At the onset it was not clear exactly what the major areas of concern were, although a rough agenda had been prepared. As the discussion evolved, it became apparent that two organizations, AIMS and TAC, presently possess almost all the road-racing technical expertise that may be considered as "international". Course layout procedures for both organizations are substantially identical, so there was no need to thrash out any problems there.

IAAF is tentatively entering the road-racing game, and they are relying on the existing technical structure to help carry it through. How this may be implemented seems to be the question. Several years ago IAAF produced a blue book entitled Guidelines for the Conduct of Road Racing. It's an attractive and well-presented volume, but does not contain what it ought to have. Its purpose is to instruct the new race director in the conduct of a first-class international race, from course measurement to finish line.

John Disley presented some reasons for the need for such a book. Some of the things that we take for granted in the developed world are not all that common elsewhere. When he was in Tanzania measuring the Mt Meru Marathon, it became apparent that parts for an ordinary bicycle could not be readily obtained in less than several days. In addition, bicycle-riding skills that we take for granted in our paved world may not exist elsewhere.

What's needed is a document that is simple and easy to understand. John felt, and many agreed, that TAC's measurement book is more complicated than it ought to be, and the Finish Line book is even more so. Completeness, accuracy and simplicity should be combined to the greatest possible degree.

It may not be necessary to put everything into one volume. It might be possible to have a very simple and easy-to-understand book, and use existing documents as appendices to the main book. In this way a complete rewrite of everything might not be necessary. John has undertaken to rewrite the IAAF handbook, with assistance welcome from all quarters. Pete will help on this.

Internationalization of road racing means that we cannot continue to rely on an "old boy" network, but must somehow strive to create a worldwide body of measurers and race officials whose performance makes them credible to one another.

Pete Riegel expressed the view that the driving force to accomplish this would come about only if IAAF created its own Road Records Committee (IAAFSTATS?) and IAAF/RRTC as well. He felt that a strong validation process was essential to worldwide acceptance of records. John Disley felt that the process might best take place within each federation.

During the course of the meeting many views by many people on a variety of matters were expressed - too numerous to detail here. Things got lively sometimes, and there was not always agreement on all things. There was, however, agreement that the goal was to conduct races so that every runner gets an accurate time on an accurate course.

If any readers would like to participate in the effort to produce a new IAAF book, please get in touch with Pete Riegel.

AMERICAN SAVINGS
1988 ORANGE BOWL MARATHON
MIAMI, FLORIDA

RACE DIRECTOR: RAGIS MORTIKAR
2145 S.W. 138 TER
MIAMI, FL 33174
1385125-1485

MEASURER: DONALD SHIFFLEAR
1888 N.W. 8 WAY
MOCA APT. 201, P.O. 33431
1385129-8974

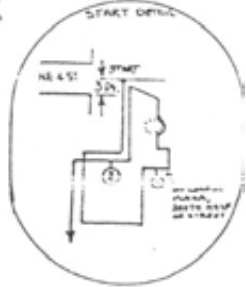
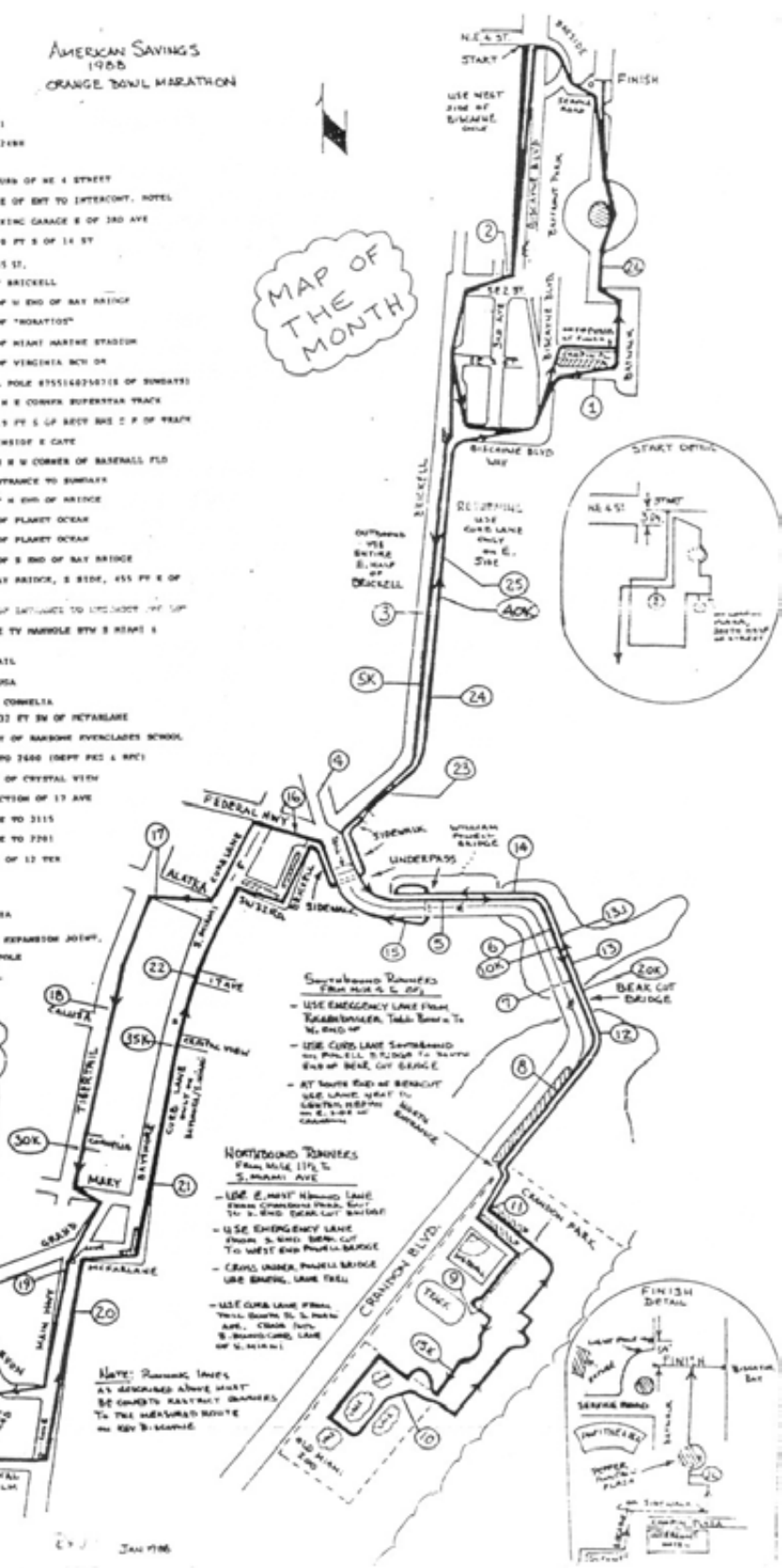
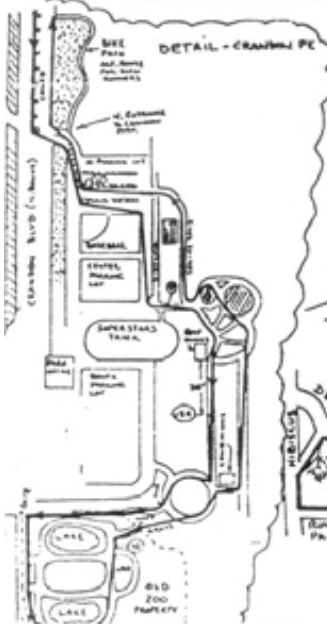
CALLS COURSE: PLEASANTON AND PLEASANTON

AMERICAN SAVINGS
1988
ORANGE BOWL MARATHON

SPLIT LOCATIONS

- START ON SIBCYRE BLVD, 3 FT W OF S CURB OF NE 4 STREET
- MILE 1 ON CHOPIN PLAZA, E SIDE, 58 FT E OF ENY TO INTERCOM. HOTEL
- MILE 2 ON S E 2 ST, AT ENTRANCE TO PARKING GARAGE E OF 2ND AVE
- MILE 3 ON BRICKELL AVE, AT 1481 AND 178 FT S OF 14 ST
- 5 K ON BRICKELL AVE, 171 FT N OF SE 15 ST
- MILE 4 ON RICKENBACKER CMT, 56 FT E OF BRICKELL
- MILE 5 ON RICKENBACKER CMT, 212 FT E OF W END OF BAY BRIDGE
- MILE 6 ON RICKENBACKER CMT, 158 FT S OF "MORATIOS"
- 10 K ON RICKENBACKER CMT, 180 FT W OF NEAR MARINE STADIUM
- MILE 7 ON RICKENBACKER CMT, 192 FT N OF VINCENZA RD ON
- MILE 8 ON CHADRON BLVD, 51 FT W OF PFL POLE 8155148756718 (OF SUNNYS)
- MILE 9 ON BIKE PATH, CHADRON PK, NEAR N E CORNER SUPERSTAR TRACK
- 15 K ON SERVICE ROAD, CHADRON PK, 215 FT S OF BRD BND 2 P OF TRAFF
- MILE 10 ON OLD 600 SERVICE RD, 187 FT INSIDE E GATE
- MILE 11 ON PARKING LOT, CHADRON PK, BEAR S W CORNER OF BARNALL FLD
- MILE 12 ON CHADRON BLVD, 188 FT W OF ENTRANCE TO SUNNYS
- 20 K ON 1/2 MILE CUT BRIDGE, 477 FT E OF W END OF BRIDGE
- 13 ON RICKENBACKER CMT, 180 FT S OF PLAKET OCEAN
- 1/2 MAR ON RICKENBACKER CMT, 761 FT S OF PLAKET OCEAN
- MILE 14 ON RICKENBACKER CMT, 138 FT S OF S END OF BAY BRIDGE
- MILE 15 ON SERVICE ROAD UNDERPASS OF BAY BRIDGE, S SIDE, 455 FT E OF W END OF BRIDGE
- 25 K ON RICKENBACKER CMT, 154 FT N OF ENTRANCE TO LIZARDY OFF SH
- MILE 16 ON FEDERAL HWY, S SIDE, AT CABLE TV TOWER BY S REAR S BRICKELL
- MILE 17 ON ALATRA, 32 FT S E OF VICTORIAL
- MILE 18 ON VICTORIAL, 63 FT N E OF CALISA
- 30 K ON VICTORIAL, AT S E CORNER OF COMELIA
- MILE 19 ON MAE HWY, OPPOSITE 1685 & 132 FT SW OF NEYANLAK
- MILE 20 ON MAE HWY, AT CTR OF DRIVEWAY OF MARSHALL EYENCLADES SCHOOL
- MILE 21 ON BAYSHORE, 78 FT S OF DRIVE TO 2400 (OPEY PK & RPC)
- 35 K ON BAYSHORE, AT S INTERSECTION OF CRYSTAL VIEW
- MILE 22 ON BAYSHORE, MIDWAY OF INTERSECTION OF 17 AVE
- MILE 23 ON BRICKELL, 45 FT S W OF DRIVE TO 2115
- MILE 24 ON BRICKELL, 24 FT S W OF DRIVE TO 7261
- 40 K ON BRICKELL, AT S W INTERSECTION OF 12 TER
- MILE 25 ON BRICKELL, AT 1181
- MILE 26 ON SIDONIA, BAYFRONT PK, 65 FT S OF PEPPER POINTSIDE PLAZA
- FINISH ON SERVICE ROAD BY BAYVIEW, AT REPARATION JOINT, 64 FT S OF SOUTHWEST LIGHT POLE ON N/2 PORTION OF SERVICE ROAD.

MAP OF THE MONTH



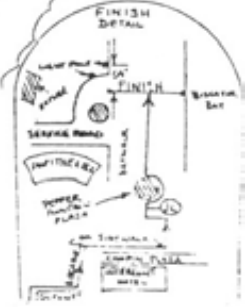
SOUTHBOUND RAMPERS FROM MAE TO 201

- USE EMERGENCY LANE FROM REPARATION TO MAE TO N. END OF
- USE CURB LANE SOUTHBOUND ON PAVEMENT TO NORTH END OF BEAK CUT BRIDGE
- AT SOUTH END OF BEAKCUT USE LANE NEAR TO LIGHTS NORTH ON E. END OF BRIDGE

NORTHBOUND RAMPERS FROM MAE 1715 TO S. MIAMI AVE

- USE E. MOST HAND LANE FROM CHADRON PARK, GO TO S. END BEAK CUT BRIDGE
- USE EMERGENCY LANE FROM S. END BEAK CUT TO WEST END PARKING GARAGE
- CROSS UNDER PAVEMENT BRIDGE USE SERVICE LANE TRAIL
- USE CURB LANE FROM TRAIL SOUTH TO S. MIAMI AVE, CROSS PARK & BRIDGE, USE LANE OF S. MIAMI

NOTE: RAMPING LINES AS DESCRIBED ABOVE MUST BE COMPLETED IMMEDIATELY TO THE MEASURED ROUTE ON THE DAY OF RACE.



NOTES ON "MAP OF THE MONTH"

Doug Loeffler produced this month's map. It's a good example of what can be done when the measurer cares enough (and possesses great drawing talent!) to do a good job. The map was particularly useful in the AIMS validation of the Orange Bowl Marathon course, since it was clear enough to resolve questions of where the course went, and allowed the riders to get a clear picture of the route before they left on their ride.

NEW CERTIFIERS

Jay Wight and Doug Loeffler have come on board as regional certifiers. Jay will oversee Illinois and Doug will take on Mississippi and Louisiana. Both will train under Wayne Nicoll until they are ready to assume final signatory status.

PRE-RACE "VALIDATION" A POSSIBILITY?

Basil Honikman has proposed (and indeed it has been done a couple of times) that an expert measurer might be sent to a race, at the request of the director, to do a pre-"validation" measurement of the course. This is already a requirement for AIMS races. The quotation marks are deliberately used, because Sally Nicoll feels that the term "validation" should be reserved for what happens after the race. But I can't think of a better term.

The idea is that a check by an expert would reduce the possibility of a measurement error, and perhaps make possible the acceptance of minor records without a full-dress official validation measurement. Timing might still be examined, and conduct of the race, but having the person right on the spot to tell how it happened would lend a lot of credibility to the record submission.

The people who might do this may not even be RRTC types. All of us certifiers know of at least a few people whose work is first-rate, and could recommend that they be employed in the above manner.

I believe the idea has some merit, but nobody has yet thought it through to a reasonable procedure. Do any readers have thoughts on this matter, including a term for the process that does not have to be enclosed in quotation marks?

AIMS VALIDATION OF ORANGE BOWL MARATHON COURSE

AIMS rules require that each of their marathons be checked by an AIMS measurer before the race, and that the same person observe to see that the runners cover the measured course. John Disley of England was selected as the official AIMS validator. He brought with him a urethane-tired non-pneumatic bicycle wheel to do the job. Since they were in Miami for the international measurement seminar, Alan Jones, Wayne Nicoll, and Pete Riegel elected to go along for the ride. Four bikes and a van were provided by Fred Shields, who also served as guide rider.

Because no calibration courses existed close to the race course a 1000 foot length was laid out on the final straightaway to the finish. Since the finish line was included within the cal course, a 704.51 foot section was reserved as a backup in case the full 1000 feet was unavailable. The cal course did get blocked by chutes, and the 704 feet, although shorter than we would have liked, was used.

Wayne had brought his own bike, so we had one extra. This was a good thing, because John's front wheel bearing cones were out of adjustment and the wheel could not be put into service. Consequently he rode a pneumatic on the spare bike. We started out immediately after the wheelchairs left, giving us a 15 minute head start on the lead runners. We found that there was no time to be deliberate in our measuring, and often had to make enroute quick decisions in order to maintain our lead. On two occasions Fred discovered areas unblocked by cones, and urged us to take the shortest way, even though these were deviations from the previously-measured route. We stopped every 5 miles to take comparative readings.

Order of riding was Fred, Pete, Alan, John, Wayne. Because of the pace, and unexpected fatigue, John and Wayne fell behind, catching up at the data points. By 20 miles Wayne had fallen far enough behind that he lost contact, and was misdirected to the wrong route. He took a count, retraced his route to the proper place, took another count and resumed his ride. Just after data was taken at 20 miles, John's rear tire blew out like a pistol shot, and he was left to fend for himself as the ride resumed. Alan and I were the only known survivors at this point - we didn't know Wayne had recovered with usable data intact.

At the finish we rolled up to the line about 15 minutes ahead of the lead runner, and the finish line people told us to "get those bikes out of here!" We explained we were measuring the course, and turned around to get the recalibration done before the runners started coming in. As we were finishing Wayne showed up, and recalibrated. Then Fred and Alan went back with the van and found John walking the bike back.

All agreed that the measurement was not of the highest caliber, since we were unable to slow down enough to be really tight on all the corners, and crowds occasionally forced us wide. Wayne in particular remarked that he had been "all over the place" on some of the turns beyond 15 miles, and his data reflect this. All things considered, however, we did manage to cover the route as it was available to the runners. Measurement results: Alan 42227, Pete 42256, Wayne 42292. It was the first marathon Alan had measured!

ORANGE BOWL MARATHON VALIDATION

FEBRUARY 20, 1988

JOHN DISLEY, ALAN JONES, WAYNE NICOLL, PETE RIEGEL

CALIBRATION COURSE: TEMPORARY ON BAYWALK, 704.51 FT NEAR FINISH
214.7346 METERS

PRECALIBRATION: 6:15 AM, 65-70 F - RAW COUNTS

JOHN	ALAN	WAYNE	PETE
83800	11000	29000	5340
85844	13003.5	31011	7349
87888	15009	33022	9357
89932	17013.5	35034	11366.5
91977	19019	37046	- -
			11600
			13606.5

POSTCALIBRATION - 9:10 AM - 80 F - RAW COUNTS

20000	49000	19200
22002.5	51011	21207
24004	53022	23214
26007	55034	25219.5
28009	57045	27226

PRECALIBRATION: 6:15 AM, 65-70 F - ELAPSED COUNTS

2044	2003.5	2011	2009
2044	2005.5	2011	2008
2044	2004.5	2012	2009.5
2045	2005.5	2012	2006.5

WAYNE
"USED"
"ELIMINATOR"
TIRE

PRECAL

AVERAGE	2044.25	2004.75	2011.5	2008.25
---------	---------	---------	--------	---------

POSTCALIBRATION - 9:10 AM - 80 F - ELAPSED COUNTS

2002.5	2011	2007
2001.5	2011	2007
2003	2012	2005.5
2002	2011	2006.5

POSTCAL

AVERAGE	2002.25	2011.25	2006.5
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OVERALL AVERAGE	2003.5	2011.375	2007.375
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ELAPSED CALIBRATION COUNTS BY VARIOUS MEANS

LOW	2044	2001.5	2011	2005.5
HIGH		2005.5	2012	2009.5
PRECAL	2044.25	2004.75	2011.5	2008.25
POSTCAL		2002.25	2011.25	2006.5
AVERAGE		2003.5	2011.375	2007.375

COUNTS PER METER

LOW	9.518724	9.320806	9.365046	9.339433
HIGH		9.339433	9.369703	9.358061
PRECAL	9.519888	9.335940	9.367375	9.352240
POSTCAL		9.324298	9.366210	9.344090
AVERAGE		9.330119	9.366793	9.348165

RAW COUNTS OBTAINED ON COURSE

	JOHN	ALAN	WAYNE	PETE
START	98400	26000	49000	24175
5 MILE	174988	101073	124438	99438
10 MILE	251532	176087	199827	174667
15 MILE	328113	251118	275222	249904
20 MILE	405014	326458	350970	325440
25 MILE * (FLAT TIRE)		401338	426342	400508
FINISH	-	419980	445142	419187
TOTAL	-	393980	396142	395012

* Riders stopped at the steel signpost rather than the painted mark at mile 25. The painted mark is 57 meters toward the finish from the signpost.

ELAPSED COUNTS OBTAINED ON COURSE

	JOHN	ALAN	WAYNE	PETE
START				
5 MILE	76588	75073	75438	75263
10 MILE	76544	75014	75389	75229
15 MILE	76581	75031	75395	75237
20 MILE	76901	75340	75748	75536
25 MILE		74880	75372	75068
FINISH		18642	18266	18679

COURSE LENGTH BASED ON VARIOUS CONSTANTS

	ALAN	WAYNE	PETE
LOW	42268.87	42300.05	42295.06
HIGH	42184.57	42279.03	42210.87
PRECAL	42200.35	42289.54	42237.15
POSTCAL	42253.04	42294.79	42273.99
AVERAGE	42226.68	42292.16	42255.56

METERS OVER 42195 BY VARIOUS CONSTANTS

	ALAN JONES	WAYNE NICOLL	PETE RIEGEL
LOW	73.87665	105.0561	100.0699
HIGH	-10.4292	84.03227	15.87970
PRECAL	5.352472	94.54159	42.15313
POSTCAL	58.04363	99.79822	78.99091
AVERAGE	31.68161	97.16974	60.56399

METERS OBTAINED ON COURSE - AVERAGE CONSTANT

	JOHN	ALAN	WAYNE	PETE
START				
5 MILE		8046.306	8053.770	8051.098
10 MILE		8039.982	8048.539	8047.461
15 MILE		8041.804	8049.179	8048.317
20 MILE		8074.923	8086.866	8080.302
25 MILE		8025.620	8046.724	8030.238
FINISH		1998.045	2007.090	1998.146
TOTAL		42226.68	42292.16	42255.56

MILES OBTAINED ON COURSE - AVERAGE CONSTANT

	JOHN	ALAN	WAYNE	PETE
START				
5 MILE		4.999742	5.004380	5.002720
10 MILE		4.995813	5.001130	5.000460
15 MILE		4.996945	5.001528	5.000992
20 MILE		5.017524	5.024945	5.020866
25 MILE		4.986889	5.000002	4.989759
FINISH		1.241527	1.247148	1.241590

The following section was calculated to give a comparison between the data obtained by John Disley, who got a flat just after 20 miles, and the other three riders.

METERS OBTAINED ON COURSE BY PRECAL CONSTANT - TO 20 MILES

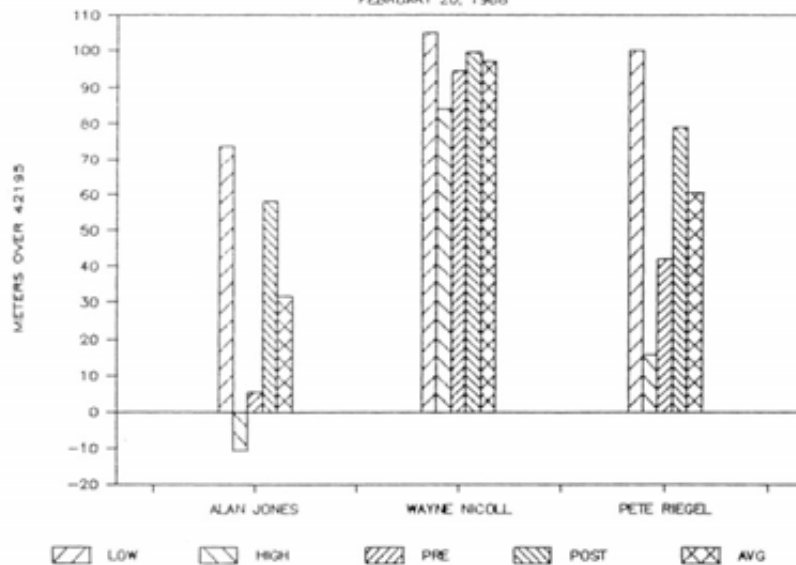
	JOHN	ALAN	WAYNE	PETE
START				
5 MILE	8045.051	8041.289	8053.269	8047.590
10 MILE	8040.429	8034.969	8048.038	8043.955
15 MILE	8044.316	8036.790	8048.679	8044.810
20 MILE	8077.930	8069.888	8086.363	8076.781

MILES OBTAINED ON COURSE BY PRECAL CONSTANT - TO 20 MILES

	JOHN	ALAN	WAYNE	PETE
START				
5 MILE	4.998963	4.996625	5.004069	5.000540
10 MILE	4.996091	4.992698	5.000819	4.998281
15 MILE	4.998506	4.993829	5.001217	4.998813
20 MILE	5.019393	5.014396	5.024633	5.018679

ORANGE BOWL MARATHON VALIDATION

FEBRUARY 20, 1988



NOTE HOW USE OF NON-PNEUMATIC TIRE BY WAYNE REDUCED HIS MEASUREMENT VARIATION.



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ROAD RUNNERS CLUB of AMERICA

February 8, 1988

Mr. Peter Riegel
MEASUREMENT NEWS
3354 Kirkham Road
Columbus, OH 43221

Dear Pete:

My January issue of Measurement News came last week and, as always, I read it right away and enjoyed it.

One thing however, needs clarification. You state that "Sally Nicholl has been nominated for the Road Runners Club of America Women's LDR Woman of the Year," and that we would "find out how her nomination fares after the next RRCA Convention."

Sally was not nominated for the RRCA Women's LDR Woman of the Year - there is no such RRCA award category. What I believe you are referring to is my nomination of Sally to The Athletics Congress' Women's Long Distance Running Committee's Woman of the Year Award, which was awarded at the TAC Convention in Hawaii. I did nominate Sally for I felt she had contributed much time, energy and devotion to the betterment of running, and deserved the recognition of being nominated. Julie McKinney, Chairwoman of the WLDR, received that award at the TAC convention in December.

Thank you and Kevin for your contribution to us in the running community through Measurement News. Though I don't pretend to be an expert in measurement, I admire those of you who are, and the subject is of great interest to me. Keep up the good work!

Warm regards,

Henley Gibble
Henley Gibble

cc: Sally Nicholl

2-25-68

To: Pete Riegel, Chairman RRTC

From: Bob Edwards, 493 Dale Drive, Erie, PA 16511

Subject: Cross Country Course Measurement

In the January, 1988 issue of Measurement News I noticed the portion of the minutes dealing with A.C. Linnerud's measurements of cross country courses and the subsequent comments. I am planning to measure a 5-K cross country course this summer with sufficient documentation and reproducibility to be certified. I thought I would pass along some of my thoughts for your consideration.

For starters, I am working with an extremely co-operative race director who is very interested in the whole procedure. We have worked together from the start to make this course happen. We have been in the planning stages for about a year now, with a number of length and route changes. I think we finally have the course roughed out pretty well.

Last summer we attempted to measure the course using multiple surface calibration courses, etc. At that time the course was a 10K across some very treacherous terrain. We finished the measurement, and the race was run, but I was never satisfied that the course was correct. It definitely was not reproducible. This time will be a different story. Here is how we plan to tackle it.

The course begins on a fairly steep uphill section of paved road, and finishes back down the same road. A total of approx. 3/4 mile will be on the pavement, and we will measure it using a standard calibrated bicycle. The remainder of the course will be run over well defined trails and gas company access roads. We intend to steel tape all of the distance on the trails, and we'll do it twice. We will have a substantial crew of motivated workers to help with the measurements, and a second crew in the cook house keeping everyone supplied with food and water. I will be supervising the entire operation.

You may question the reproducibility of this course. At every turn and bend we will be placing a permanently numbered 4x4 wooden post. We plan to have a following crew with a gas powered post hole digger sinking the posts at our marks before our second measurement. Our estimate at this time is for roughly 2-3 dozen posts being needed. In addition to these posts, we have some gas wells and other very permanent landmarks to use along the way.

As you can tell, we are planning to put more than an average effort into measuring. We are not looking for an easy way out, just for an accurate course. I think that by the time we are done this course will be every bit as accurate as a road course measured on a calibrated bicycle, and just as repeatable. Let me know what you think about this plan. We would like some kind of assurance that if we do this much work, and do it right, that we can get the certification. Thanks.

Yours Truly



Bob Edwards
Regional Certifier
State of Pennsylvania