



*MEASUREMENT NEWS* 

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March

1987

Issue #22

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Kevin Lucas, Texas Regional Chairman and Daniel M. Millet, Southwestern Association Chairman at IAAF Cross Country Trials, February 14, 1987, Dallas, Texas.

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## MEASUREMENT NEWS

#22 — March, 1987

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### RRCA CONVENTION A MEASUREMENT GET-TOGETHER

Wayne & Sally Nicoll and Pete Riegel will be attending the national RRCA convention in Maryland this spring. We intend to bring our bikes for some time measuring together and seeing what we can learn. If you're interested in attending, get in touch and it will help us arrange the times we can be out on our bikes. Nothing heavy - just some good measurement fun. And a chance to grind the faces of some people who are nationally recognized but (you suspect) really ride no better than you! Beware - all the sly ways to cheat our fellow measurers are known to us. Measure at your peril! Old age and treachery will beat out youth and skill every time.

It has been rumored that Nicoll will spot you 5 meters in a 10k at even money.

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### PUZZLE FOR THE METRIC-MINDED

This puzzle appeared in Ultrarunning Magazine, March, 1987. Your Editor immediately sprang forth and sent in the wrong answer. Certainly other RRTC folks can do better. You'll be too late for Ultrarunning, but the answer will be published in next MN.

## Puzzle for the Metric-Minded

The 200-meter indoor track at La Rochelle, France, is the site of the most competitive six-day race currently run. Results from that race are reported to us in miles and yards, which means that runners who complete an even number of laps at La Rochelle lose a few inches. For if a runner completes 150.8 kilometers, then he has run 93 miles and 1236.885 yards, and it would be incorrect to report that he had run 93 miles and 1237 yards; therefore the reported distance is 93 miles and 1236 yards.

Question: What is the least whole number of laps that can be run at La Rochelle so that the distance works out to an even number of yards, that is, our reported distance in miles/yards exactly equals the metric distance?

A UR T-shirt will be awarded to one person, chosen by lot from those that send in correct answers by March 10th.

Washington, DC  
January, 1987

IAAF Measurement Seminar, Seoul, Korea  
December, 1986

Dear Bob L, Lennart J, Pete R, other Seoul-fellows and fellow travellers,

This is all rather overwhelming: the seminar in Korea, two excellent and extensive reports from Bob Letson and Lennart Julin, Pete Riegel's commentary, and the KAAF measuring report itself. Only a certified fool would try to ride an SPR through all of that; but I guess, being a course measurer, that I qualify. To be honest, the "S" part is not likely— have you noticed that course measurers are as generous with words as we are (or try to be) stingy with wobbles?

#### 1. Being There

Seoul is a BIG city. Its size hit me from the moment I climbed onto an airport bus, bound for the Sheraton Walker-Hill. Km after km of built-up, busy streets, stop after stop. 90 minutes later, I was sure I'd been had— that bus must have deliberately gone the longest conceivable route— but I later learned, to the contrary, that Seoul is just that big. Even the taxi takes an hour from the airport.

On top of sheer size (officially 8 million) is the traffic, which seems to organize itself into a continuous rush hour, with a guaranteed traffic jam somewhere at almost any hour of the day or evening. The point was driven home when Bob Letson, Bob Read and I went on a simple (?) errand, to buy a hammer and some spray paint. It took 45 minutes just to get to the market area for tools. It was worth it, though— none of us was prepared for the narrow, busy lanes lined with small shops, tables piled high with tools, electronic components, watches, whatever— fun! Got a good enough hammer for \$2, spray paint for \$1, and a great tour in the bargain. We looked for a taxi to take us back, and promptly discovered that getting a cab can be an aerobic sport— you see a cab stopping, then sprint to be the first one to open the door and shout your destination. With three of us trying, we finally got one.

Running in Seoul was always a treat— one morning watching children, lots of them, converging on school from every direction. Some of them carried chopsticks and plastic bags, and used these to pick up and carry litter from the streets. On one run I wound through lots of narrow streets, along with other pedestrians and massively reinforced transport bikes that carried enormous loads. One morning I discovered a "Children's Park", with animals, amusement rides, and play areas. In hindsight, I think this would have been an ideal place to teach bike measurement: little used in winter season, there is a straight road for calibration and lots of winding roads for good SPR practice.

Another big treat was shopping or just walking through markets. It'aewon, where you can buy just about anything for bargain prices (at night, apparently, you can buy anything); downtown areas with specialty markets; and always, food — different enough to be intriguing, smelling good enough to try, so why not? Strange fruits and nuts, meats, baked goods, dried fish, steamed dumplings all made interesting and often delicious snack food.

Koreans are friendly, and very helpful to strangers. Not only our gracious and tolerant hosts from KAAF, but others we chanced to meet, made us feel as though it was important that we enjoy our time in Korea. And, thanks to them, we did.

## 2. The Conference

Bob L and Lennart have given good accounts of our activities already. I feel the real strength of the experience was in the nitty-gritty work that we did together: practicing calibration on Ch'onhodaegyo Bridge; measuring a piece of the marathon at 3:30 am; grinding out figures, and drawing tentative conclusions. Also not to be forgotten: cannibalizing parts from 15 bikes to get 10 workable ones; learning to operate the front brake with the right (i.e. wrong) hand; and steel-taping the calibration course in pouring rain, with one end of the course under 10 cm of water (sometime I plan to write up our precision technique for that one— you need one person sort of kicking the water away, another trying to hold a ball point pen plumb on the point, a third . . . but you get the picture).

Apparently rental bikes are not a big item in Korea, and the only ones KAAF could obtain for us were small, single-gear affairs with brakes guaranteed to make an atheist pray, operated with levers on the lowest part of the turn-down handlebars. So we had a lot of guys kneeling themselves in the chin until they got the hang of things.

Our first test with these bikes was simply to ride the short distance from the Sheraton Walker Hill to a calibration course that had been laid out for us the day before. The problem was, Walker Hill is a real hill and we had to ride down it. We clamped our brakes as hard as we could and hoped that we wouldn't really have to stop. Mr. Shimazu (senior Japanese delegate) didn't make it, and took a nasty spill. He was taken to a hospital and pronounced OK; he took it in a good spirit but declined to ride after that.

John Disley rode with his 27" solid tire mounted on the 26"-wheel bike. This meant absolutely no front brake. Later he switched to a 26" wheel— not for need of a brake, you understand, just so he could clamp the front wheel to keep the counter from moving.

Poor Lennart! After a whole session of trying to make peace with one of these strange bikes, the next morning when we got out the bikes for the marathon measurement, he couldn't find his, and had to start all over with a new beastie. Afterwards, when we took the Jones Counters off the bikes, Lennart couldn't find the ones he had brought. We found some that were at least in acceptably good shape for him. I thought his bad luck had ended there, until the formal Korean-style dinner. According to custom, we removed our shoes— and there was Lennart, with one red and one blue sock! He claims to do this on purpose, but in my own mind I haven't ruled out gremlins.

The measurement itself was an exhilarating experience— good conditions, good protection, and thanks to Mr. Lee and Bob Letson and the others, a good recording and support crew. The morning we measured was actually a little warmer than several days (typical am temperatures were  $-8^{\circ}\text{C}$  to  $-2^{\circ}\text{C}$ , but we had  $+4^{\circ}$  to  $+2^{\circ}\text{C}$ ), so that it was cool but not uncomfortably cold.

We did have a plan to accommodate the dual goal of doing a trial run for the novice measurers, and getting a complete marathon measurement. The plan was that two of us would measure the entire course, while the rest went to the 10K point and back. We felt that 10 motorcycle policemen would be enough to protect both groups. But it didn't work out; the police told us that they already had orders from their commanding officer, and

they couldn't make any changes. So we did what we did, and it was fun.

### 3. Reports and Results

First, Bob Letson: your report is complete, timely, well thought out and well stated. I especially like the "soldier graphs" of the measurements of each segment, and your discussion of the KAAF report. I would second most of your specific comments on that report, particularly regarding the merits of the report that you enumerated, the need for point descriptions, and the importance of coning the blue line at turns. Although I have many of the same reservations that Lennart expressed, I do think your presentation was fair and balanced.

I am not yet ready to concur on the 1/1000 accuracy for pneumatic tires and 1/2000 for solids. I think pneumatics can do better than 1/1000 given appropriate calibration. As for solids, 1/2000 may be a good ballpark figure, but with the wrong conditions, in particular measuring a rough-surface course from a smooth calibration course, solids can bomb out. More on this in another report.

On the interpretation of soldier graphs: we should note that not all of the Dec. 3 bikers were following "invisible SFR"; some were following the line. This, along with the wide diversity of experience and the unfamiliar bikes, explains much of the spread on Dec. 3.

Lennart, your report also was a pleasure to read and think about.

#### Assorted comments:

- About the 11.5 count difference I got over one section: on the way out, you may recall a pile of rubbish along the road edge. I rode straight to it, clamped my brake and moved sideways to restart. Then I realized that I had clamped my rear brake with my left hand! Not much to be done at that point.
- That mistake could account for some or all of the difference. But that brings up a point: On complex portions of a course, I often find myself "beating" previous measurements by quite a bit. I expect this and try for it. A measurer should get better on successive measurements of the same course. This supports your suggestion that it might be better to have a few measurers make repeated measurements.
- I also heartily agree with your feeling of satisfaction that the experienced measurers achieved such similar results. It bolsters confidence in the method.
- Should rules say "shortest route" or what? I still like the idea of giving tolerances, as in no more than 30 cm from curb or 20 cm from an uncurbed edge-- or maybe both should be 20 or both 30, but the point is this tells you just how tight you have to measure. I think validators should attempt to stay the specified amount out from the curb. Otherwise the SFR is defined only by the most audacious, tire-scraping rider you can find. If the measurer wants to scrape his tires on the curb, fine-- but let that give him an additional margin of safety. Even so, I think judgment needs to be applied-- e.g. in case of a dangerous drop-off into gutter, or an especially smooth one.
- On SCFF, I agree that 0.5% would be a mistake for bike-measured courses. I just don't believe that a set of measurements can justify that much confidence. Also the gain, 21 meters, is such a small part of a marathon (at 2:08 it's worth less than 4 seconds) that it's not worth the risk of possible shortness.

4. More results and some questions  
a. KAAF report and the Seoul course

The report is very impressive, and reflects a strong commitment to doing a careful job of measurement. I didn't understand everything in the report, and reading it makes me aware of the kinds of things I and other measurers could learn from some of the formal aspects of measurement. It's too bad that an apparent computer error left out the raw Jones counts for most of the bikes; I'm still hoping that we might be able to see that data some time.

For all the analysis we might do, there is still just one way to form an independent judgment: measure the course. I don't even like to get into guessing. For the almost 11 km we measured, my own results show a possible  $3\frac{1}{2}$  - 4 meter "shortfall", and other results were similar. So I'm not extremely confident that a 13-meter SCFF (chosen in this case after analysis of the results) would be enough. On the other hand, I believe that any "shortfall" in the course could be ascribed to the difference between measuring the painted line and measuring what I judge to be the SFR—so that if corners were carefully coned, the distance should pass muster. Just a guess— which I wasn't going to make.

HERE IS A QUESTION FOR ANYONE: how were the portions of the course between Start and R1, and Finish and R1, measured? In my papers I can't find any reference to that.

I am very sorry we didn't get to measure the entire course, and I agree with Lennart that a measurement would be a good idea. Of course that is up to KAAF at this point. In any case, cones should be placed just inside the blue line at all turns.

b. The Conference

The conference probably had too many disparate goals to have succeeded completely on very many of them. But it was fun, productive, and I hope it is only the beginning of some good international communication in this area. You have to admit that is a triumph of sorts just to gather a bunch of people from around the world, with different backgrounds and approaches, all of whom actually care about a few meters here and there in a race course!

I do think a lot would be gained from more extensive footwork in the host city. As I mentioned, the Children's Park would have been a great place for a one-session demonstration of the measurement method. A more carefully thought-out plan for measuring the marathon could have put that goal at least within reach.

c. IAAF Rules

We definitely need a set of rules and a structure for implementing them. I agree with Pete that the system we use in the U.S. works— that's not to say it should be adopted lock, stock and barrel.

On SCFF, the closer we shave it the more "proof" I'd want to see in terms of independent measurements. For big races like Olympics, I'd like to see three sets of measurements: the original measurement; an independent pre-race confirmation (by someone from another country); and a post-race validation in case of records.

What about steel-taping (actually, steel-wiring) a course, as it is done in Japan? I hope, in our zeal to establish international rules, that we do not rule out such a procedure. From what I learned from the Japanese, their procedure is sound— they use a carefully calibrated 50 meter wire, take tension and temperature into account, and even have a built-in SCPP of 5 mm per 50 meters. A team of people work together to give line, count wire lengths, hold poles to establish curvature on turns. The main divergence from what we're doing is that they use a 1-meter offset from curbs on turns; another is that the final measurement is done just one time. What really appeals to Bob Letson and me is that such a system requires a team approach, and that's a good thing.

I see no reason why an approved international observer could not be present at such a measuring session. But what about a validation? Would we check the course by bike, thus using a cruder method to check on a more precise method? Probably yes, because it would be too time-consuming to go through the whole process again. But especially in a case like this, I'd support Pete's principle of "innocent until proven guilty."

#### 5. Leaving, Almost

Bob Letson had a good idea to help in assessing the measurement of the Seoul marathon: go to the significant corners and turns on the route, and take measurements in order to document the path of the blue line. It wouldn't be definitive, but would give a handle on the difference between their version and anyone else's version of SFR.

A good idea, but it never happened. I intended to do it, but without Bob there to prod me, I found that other things beckoned— Kyonbokkung, a large "palace" which actually contained many royal buildings, gardens, man-made lakes; a fascinating complex of bookstores underneath a major downtown intersection; more shopping; and running.

The best running discovery came toward the end of my stay, when Bob Read and I ran into a park near the hotel, and discovered that it connected to a vast open and hilly area, laced with footpaths that thread their way over rocks, up and around hillsides, occasionally skirting mound-like tombs and other surprises. We met scores of Koreans out for morning exercise, at the lower levels playing raquetball and collecting the much-prized spring water, and higher up walking and jogging on the trail, and using the exercise equipment that was dispersed at wide intervals in this open area. We even came upon a Buddhist temple, high in the hills where the only access was by foot. From the hills we could see much of Seoul in one direction, and far up the Han River Valley in the other.

That was a high point, literally and figuratively (I'm guessing 280 m above sea level for you numbers people), and it showed me another side of the Koreans. They are avid backpackers and hikers, it turns out. A good thing, because much of the country is too rugged for settlement or farming. Bob Read had to leave that day— but I made sure to run there the next morning before I left. My advice to anyone going to Seoul for the Olympics or for whatever: at least once, get out of the city or at least to an open area like the one we found. You will witness the Koreans' love for nature, and you will see that there is more to Korea than this big, overwhelming city.

6. Leaving, Really

FLASH BULLETIN: SFR IS NOT ALWAYS FASTER!  
Witness: Flying from San Francisco to Japan, following SFR (great circle route over the Aleutians), DC-1011 takes 12 hours. From Japan to San Francisco, following 39th parallel, DC-1011 takes 8 hours. Put that in your pipe and smoke it (but watch out for the jetstream).

That's all for now. As I feared, I couldn't come up with a "shortest", just a "possible route". A minor new year's resolution: I'll try to write things down more often, but in fewer pages!

Best Regards and Happy 1987 to all

*Bob Thurston*  
Bob Thurston

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13 January 1987

Dear Pete,

Sorry this is so late. I envy you for your quick turn-around time in responding to things.

Some other time I'd like to get into the notion of acceptance of measured-slightly-short courses. To accept down to - 1/2000 of stated distance might make some sense. Two problems I see are: 1) if validator on first ride finds course .05% short, mightn't he ride it better on another ride and find it, perhaps, .08% or even .1% short? and 2) public acceptance "but it's short, isn't it?" etc. Public notions may need to change, of course.

Public opinion, I guess, also keeps us from defining more realistic limits of precision for records. It seems to me that marathon records should be rounded to the nearest 10 seconds, or maybe to the nearest 5 — i.e., 2:07:30 could be a record, not considered broken until 2:07:20 is run. But we always seem to feel that when we see a number, it is significant.

Bob T

PS Had to chuckle at your account of measuring in Chicago. Was there Christmas week and started running on the jogging trail. Couldn't find where the south end went to, as it kept losing me. Finally figured that it led right into Lake Michigan! (I was wondering who they got to measure that). The way the lake is acting it may be necessary to develop an underwater bike-measuring technique. They could run a race above the water line, but by the time a validation is made the course could be part of the lake!

\*MAYBE IT WAS THE MIDDLE PART (I STARTED FROM NORTH SIDE)



## ELEVATIONS AND S/F SEPARATION

In spite of the fact that our elevation and s/f separation data are shaky, they nonetheless do have some value. We have found a way to get them into the course list, but without getting away from the compact format we are using now.

We use a single number called "drop" which is simply the ratio of the elevation drop to the course length, expressed in meters/km to give a larger number rather than a fraction. A course that goes uphill would have a negative drop, but I expect there are few of these.

A second number ("separation") is the ratio of s/f separation to course length. This is expressed as a percent.

A closed loop course would have zero drop and zero separation. A flat calibration course would have 100 percent separation and zero drop. A course that started at the top of a cliff, wound down the mountain and finished directly below the start could have a 120 m/km drop and zero separation (since horizontal distance governs this).

We now have the following example, expressed in units we generally receive as reviewers:

Course length = 10 km	$\frac{(970-930)(.3048)}{10} = 1.2 \text{ m/km}$
Elevation of start = 970 ft	
Elevation of finish = 930 ft	
s/f separation = 1.2 miles	$\frac{(1.2)(1.609)}{10} = 19 \text{ percent}$

At present a course may drop up to 2 m/km and still be called a "loop" if the "separation" is less than 10 percent. Our example course is thus a "point-to-point". Of course, IAAF or TAC may change these definitions, but if we have the dope in the list we can be up to date no matter how courses are defined.

Our course would be listed as follows:

DIS	LOCATION	COURSE ID	COURSE NAME/RACE	M/KM	PCT	DROP	SEP	MEASURER
10k	Columbus	OH87399PR	Columbus Classic	1.2	19			J Jamoca

We have lost the precise date of measurement from the list, but if a question arises we always have the certificate.

We intend to start listing courses as I've discussed. See this issue's course list for example. We don't intend to calculate exact drop and separation for all the backlog courses. If somebody cares enough he can send us course ID, separation and drop and we will list it.

## TAC CONVENTION TO HAVE MEASUREMENT CONTEST

Tom Ferguson (see letter elsewhere this issue) is in the process of devising a measurement contest for those attending the TAC convention in Honolulu. It will involve a pleasant stroll in which you count your paces. You may calibrate your instrument against a cal course that Tom will lay out on the course. Maybe 3/4 of a mile. A prize will be awarded, and even non-RRTC folks may get out and measure. Watch MN for further details. Feet only. No bikes allowed!

## IDENTIFYING TYPES OF COURSES

In the new list we aren't showing courses as "loop", "point to point" or "closed loop" any more. These definitions may change, but the characteristics of the courses will not. To tell what's what, here's a guide to the present definitions:

- 1) A loop course is one where:
  - a) Drop is less than 2 m/km, and,
  - b) Separation is less than 10 percent of course length.
- 2) A point-to-point course is one where:
  - a) Separation is greater than 10 percent of course length or
  - b) Drop is greater than 2 m/km
- 3) A closed loop course is one where drop and separation are both zero.

Note that we are classifying any course with a common start-finish as a closed loop. Maybe the measurer did not intend it to be so used, but it may be used for multiples of its length.

## THE COURSE LIST — WHAT DO YOU WANT?

The use of the one-line format in the course list, coupled with the capabilities of the Wordstar and WordPerfect programs, makes it possible to customize course lists to suit almost any need. John White is working hard at getting every course that has been certified since "Certified Road Running Courses - 1986 Edition" was published. When he is done we will have two lists - one by NRDC, one by RRTC.

## LATE FLASH —

Jennifer Young is going to put the NRDC list into the new format. Soon we will have the entire listing of certified courses together.

\* \* \* \* \*

Once we've got everything computerized we can print out lists by:

- 1) State, distance, city
- 2) certifier
- 3) measurer

There are lots of things that can be done. I can't list them all.

## IAAF MEASUREMENT RULES

Bob Hersh is traveling to the April meeting of the IAAF Technical Committee, and he sent a foretaste of the new measurement procedures that have been proposed for IAAF. The new rules are based on present AIMS procedures, which are in turn based on our own TAC measurement procedures.

If the new rules are adopted as proposed there will be no disparity between the way courses are measured around the world and the way we have already measured our 4000 or so certified courses.

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COURSE LIST INFORMATION REVISED

The RRTC Chairman, Pete Riegel, has recently devised a plan for converting the certification information on net elevation change and on start/finish separation into useful numbers. Sometime in the future we expect that the IAAF will announce course classification rules that will replace or extend the current closed-loop, loop, and point-to-point definitions. Further we have no expectation that the new classifications will remain unchanged for long periods of time. We can avoid the need to change classifications on the course list, provided we can anticipate the figures of merit that the classifications will be based on. The current plan is to give the correct figures of merit and let the course list user decide what classification is appropriate based on the current rules at that time.

In the above list you will find a column labelled "DROP" giving the average decrease in elevation from start to finish in units of "meters of drop per kilometer of course". A second column labelled "SEP" gives a measure of the start/finish separation in percentage. These are the logical units for future rules, but the information will require interpretation for most runners.

921 Bath  
Ann Arbor, MI  
48103

Pete,

I received your note today from the McAuley Hospital folks wanting info on certification.

I met people from the hospital over the weekend at a Race Director's Workshop. They asked me to measure their course. I will ask them how it is that they didn't know that I did that sort of thing; now that I have their letter to the national office. The answer, I fear, is predictable.

I like the idea of the on-site short course cal courses. If you'll recall, I proposed such a thing a while back. I've found acceptable agreement on experimental short course cal courses.

The Age Standard Time Equation is similar to the Purdy predicting tables.

For what it's worth, in Michigan, we don't require a race director to certify his/her course to qualify for TAC sanctioning. They are unrelated beasts.

How can the world ever be assured that the course Ingrid set the marathon world record on in London, was the proper distance?

Is it possible to certify a trail race? I think the answer is no, but figure there might be a way to accurately measure such a course to exacting standards.

2/23

Regards,



Scott

TO Sally:

1- I am eager to have my riding ability evaluated so I can qualify as a validator. If you or Wayne happen to be doing a validation anywhere near me, please let me know if it could provide me with an opportunity to be evaluated. Also, on your travels to New Hampshire, if you're ever in need of a stopover place please don't hesitate to call. We have a small apartment, but our new, queen-sized sofa-bed is more than adequate for guests and Joyce is a great cook.

2- I understand from what transpired at the final men's LDR meeting in Tampa that the New York 100 Mile in June will require an on-site validation immediately after the race. Since I live very close to the city, I would be available at zero cost to handle it, if I can get qualified by then.

3- The Sri Chinmoy Marathon team has a one-mile certified course in Queens (very near the New York 100 Mile course mentioned above) on which they run a number of different races, including many ultramarathons which have been the site of national and world "pending" records. Again, I would be willing to do a validation at no cost.

4- If you would like a potential starter contact for the 15 km Portuguese course on which Marty Cooksey ran her "pending" U.S. record in the IAAF Championship race, I suggest you contact:

Jose Antonio Soto Rojas  
Los Acebedos 12, A, 2<sup>o</sup>  
Sandander  
SPAIN

Tell him that I suggested him as a contact. He does not speak English, but he has regular access to a translator. He directs one of the world's best 100 km road races, and his race has been validated by a British measurer. He has a number of Portuguese contacts, and he may be helpful.

5- Going back to the Sri Chinmoy course for a moment, I may be pressured to do a validation of that course for the International Association of Ultrarunners (IAU), since a pending World Record is at stake. If it looks as though I may be able to get myself qualified as a TAC/RRTC validator, then I'll hold off so as to avoid having to have the course validated twice.

6- As director of the Philadelphia to Atlantic City 100 Km, if I get sufficient sponsorship for next year's race and can put up front money for travel funds for a validator, could you assign one to pre-validate? I understand that if a record is set a post-validation may have to be performed as well, but we might like to have the extra insurance in advance, and would be willing to foot the whole bill.

Best,

*Dan*

Dan Brannen  
3533 Stevens Road  
Wallington, NJ 07057



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men and women and boys and girls  
at all age levels.*

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Augusta, Georgia 30907  
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January 22, 1987

Dan Brannen  
3533 Stevens Road  
Wallington, NJ 07057

Dear Dan,

I will finally take a moment and respond to your informative letter of January 5. We have been right out straight with materials preparation for 1987, both for TAC and our business. Happily we have pretty well "caught up" (if that's ever possible) passing a big hurdle yesterday in completing the new form for race walks held on the road to use when applying for records.

Since you set your letter up so nicely with a 1 - 6, I'll cop-out and follow the numbers to answer you.

1- Thank you for your kind offer of bed and board should our travels vary us your way. Sounds like fun! We certainly look forward to an opportunity (or 2 Or 3 or..) to have you ride with Wayne or another qualified validator when the opportunity presents itself. May not be until the snows have cleared, but we'll manage it. I'll keep you posted.

In the letter I wrote to all RRTC members following convention I attempted to cover new validation procedures. I will be working closely with Basil and Linda to determine that those events which have pending records and all their factual and visual data in order get prompt attention. We will not become involved in remeasurement activities where there are gaps in necessary information and documentation. The few unsuccessful validations in recent years have created too much "negative press". I would a lot rather be able to say we are "awaiting more information from the race staff" than to have the press criticizing us for "picking " on a situation.

This year a lot of time will be spent by TACSTATS, RRTC and others extending the educational process to assist road races in meeting our requirements more easily. Those who follow the rules of the sport will be receiving the recognition.

2- Enclosed you will find a copy of a letter to George Regan fef: the NY 100 Mile. I appreciate your offer to handle that one but it is a political hot-bed and I'm going to move VERY SLOWLY!! First, there must be certification documentation or there will be nothing to validate. So, step 1 will be to have a look at what needs to be done should we see any paperwork. I will keep you advised. It is my inclination at the moment to send, should we get to that point, a validator of considerable experience who is relatively unknown to the NYRRC scene. If such transpires I certainly would consider you going with him for an additional ride/opinion.

3 - Regarding Sri Chinmoy, there is course paperwork of sorts available so the situation is different from Shea Stadium. Here the problems appear to be in documentation. We can not justify validations where all the facts are not available. If we fell into that crack we'd be in a hugh tailspin! In fairness to all concerned - runners, race officials, etc. the rules must be followed to qualify for the rewards.

4.- Thanks for the info

5 - I would assume (maybe I shouldn't) that the IAU would have standards of accuracy involving stopped times, lap sheets, proof of age, course certification, etc. I'm not aware of their requirements, I'd be interested if you could fill me in.

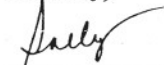
My mandate is, however, from TAC/USA as the official governing body and I am obliged to follow their rules. We, unfortunately cannot accept the "validation" of another group in lieu of our own. If you want to wait that one out we can see what happens next.

I've decided to put the race walk record application in for you to see, possibly it had some application to the needs of ultras.

6- As far as the Philadelphia to Atlanta City LOOK goes, my suggestion would be to consider requesting a validator to ride the course a day or two before the race and then be present on race day to see that they followed the correct path. In that case the cost would be born by the race budget - I don't feel generally we should use RRTC funds before all the results and other facts are in order. A measurement by a validator so approved would be accepted for your race once the other facts were finalized - no post race measurement would need to be made.

I hope this has been helpful. Your enthusiasm is refreshing.

Sincerely,



Sally H. Nicoll  
RRTC-Validations Chair

enclosures

cpys: TACSTATS  
Pete

THE ATHLETICS CONGRESS  
OF THE USA

Road Running Technical Committee  
Peter S. Riegel, Chairman

3354 Kirkham Road  
Columbus, OH 43221  
614-451-5617 (home)  
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January 26, 1987

TACSTATS - 7745 SW 138 Terrace - Miami, FL 33158  
Bob Baumel - 129 Warwick Road - Ponca City, OK 74601  
Sally/Wayne Nicoll - 3535 Gleneagles Dr. - Augusta, GA 30907

#### PRE-VALIDATION A POSSIBILITY?

My recent conversation with Tom Knight and past correspondence with John Disley (and Sally's last letter to Dan Brannen re Phila-Atlantic City) have got me thinking that it would be nice if we could come up with a reasonable pre-race measurement procedure that would guarantee the race director that his course is OK. This would greatly reduce the present anxiety level when a record is set. Once the director knows he has a solid course he can concentrate on keeping the runners on it.

The AIMS procedure of sending in a qualified measurer to check the course before the race, and stick around to see that the race was run as measured, is one that leads to confidence, when the procedure is followed. The American way of sending in a validator later is another way of assuring veracity. But our way creates a period of uncertainty between the time a "record" is set and the time the data are examined and the course checked.

We have had to do it our way because we have many courses and few measurers. AIMS evidently believes that it has enough measurers to do the job, but it is clear that only a minority of AIMS courses really get the going-over specified by AIMS rules. In neither of the AIMS world-record-marathon courses were AIMS' own requirements adhered to!

A pre-race validation will usually turn out to be a waste of the measurer's time, since a record performance will rarely result. If qualified measurers were willing to pre-validate certain races, is there any way that our pre-race "validation measurements" could be considered as official?

Is there no way we can offer a race director peace of mind before the race?

At the same time as I'd like to see pre-validation a possibility I feel strongly that post-record measurement remains a good idea. Are the two approaches incompatible? It seems unreasonable to me that anybody should say "you may not measure my course". This strikes me as being overly defensive, because a competently-measured course will not be found lacking. A good measurer is not afraid of his fellows.

IAAF, in concert with AIMS, has established a road-race circuit in the US in which an IAAF-approved measurer is supposed to check out the race course beforehand, and stay around to watch the race to see that it was run properly. Most of the races are established big-time



US races, and most, I expect, are TAC certified. The effect of the IAAF measurement on the TAC certification is not clear at this point. If a TAC certified course was to be shortened based on the IAAF measurement, it would lose its TAC Certification. The IAAF measurement has no weight in the US.

We have no clear set of data that indicates the degree of relative competence of IAAF measurers. There is nothing to indicate that it's not equal to our own. A portion of the Seoul Olympic marathon course was gone over by an international panel with good agreement. I know of only three whole courses that have received scrutiny by both US and IAAF measurers. In Rotterdam, Helge Ibert and Lennart Julin got measurements that were virtually the same as my own. John Disley remeasured NYC Marathon and found that it was around 70 meters oversize, rather than the 42 that were intended. This is not a significant difference, especially since the original layout was conducted in sunshine while the calibration courses were shaded, giving excess overage. I think NYC is oversize by more than 42 meters. It was laid out "by the book" i.e strictly in accordance with TAC procedures.

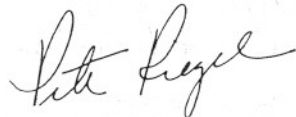
The TAC - certified Honolulu Marathon course was checked by two AIMS people and found to be about 100 meters oversize. However, their ride was done during the race itself and it is doubtful whether they were able to obtain a good, tight ride at all the corners.

Occasionally public skepticism creates an aura of doubt around a certain "record". In cases like these, it is wise to make all the course information available to the public, and let he who will, remeasure. If evidence of a discrepancy results, then the matter can be reopened. Being adamant against remeasurement only fuels doubt about the course.

As a first step in cooperation of this type, I am happy to announce that the certification document, including course map and precise location of start/finish, is available for any TAC certified course. Any person from any place can obtain the map for any US course. A small fee (\$2.00) is levied to discourage frivolous requests.

My thinking is not very focused on all this. I am just looking for a way to give race directors what they want. Do any of you have any ideas?

Best regards,



xc:  
Allan Steinfeld - 9 E 89th St. - New York, NY 10128  
John Disley CBE - PO Box 262 - Richmond, Surrey - ENGLAND TW10 5JB  
AIMS Newsletter - PO Box 10-106 - Hamilton, New Zealand  
Andy Galloway, Secretary-Treasurer  
Tom Knight - 307 Dartmouth Ave - San Carlos, CA 94070  
Dan Brannen - 3533 Stevens Road - Wallington, NJ 07057



Association of International Marathons

AIMS

20 February 1987.

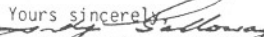
Mr. Peter Riegel  
3354 Kirkham Road  
Columbus  
OHIO 43221  
U.S.A.

Dear Peter,

I received your letter which you sent for publication in our AIMS Newsletter but before doing so, thought I had better write and point out some very grave errors in your statement. I am indeed surprised that you should make such a statement without first checking your facts.

- 1) The course was NOT measured during the Honolulu Marathon but during their WHEELCHAIR Marathon held the previous day.
- 2) The road was closed for this Wheelchair event and thus we were able to carry out an almost perfect uninterrupted ride throughout the whole course. We started out at the tail end of the wheelchair race and only passed three or four of the slower wheelers. These people took a much wider line than we did and were no impediment.
- 3) The measurement was in no way carried out in a hurried fashion. It was done carefully and calculatedly as it should be done.
- 4) We were able to do our calibration rides along the very edge of the roadway, whereas those done by the Honolulu measurer (Barjolini) were carried out on the footpath. The footpath runs along the Ala Wai Canal which has several sets of steps let into it and it is absolutely impossible to carry out a straight ride on this footpath.
- 5) Mr. David Benson a former Race Director of Honolulu has been telling the organisation for the last few years that they had made an error in moving their start back, and that the old measurement was correct. Our ride proves his point.
- 6) In Measurement News is further discussion on the Honolulu measurement, again with many erroneous statements. I would suggest that these are corrected and an apology made. Whether you Americans believe it or not, people of other races are not unintelligent and can ride bicycles.
- 7) The Honolulu Marathon course was 355.75 feet overlength. This, over and beyond the 1 in 1000 error factor.

Yours sincerely

  
Andy Galloway, SECRETARY.

c.c. Bob Dalgleish, Jim Moberly, David Benson.

Secretary/ P.O. Box 10-106  
Treasurer: Hamilton, New Zealand  
Telex: NZ 21523  
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THE ATHLETICS CONGRESS  
OF THE USA

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March 5, 1987

Andy Galloway - AIMS - PO Box 10-106 - Hamilton, New Zealand

Dear Andy,

Your letter of 20 February arrived just as I was putting the finishing touches on Measurement News. This, therefore, is written in haste.

Several people whom I have offended can testify that I am quick to apologize when I see that I am wrong. I am not certain that my observations as to the probable quality of a measurement performed by two people I had never heard of were "very grave" errors. Now that I see it is you, and not "Ken Galloway from Australia" things are beginning to clear up. I was using the ride as an example of potential conflict between IAAF and a national governing body (TAC). I acknowledge that I made a mistake, and I apologize to the degree appropriate.

There is a potential explanation for the extra 355.75 feet. Are you absolutely sure you measured the course as it was certified by TAC or did you just accept the race director's word and measure from the start line to the finish line? It is quite possible that the race was not set up on race day as it was certified. Did you actually see a certification map? It does exist. If you didn't see the map, can you be sure you measured the same course Bartolini did?

I find your comments on the calibration course fascinating, and I'd like to hear more about it. In fact, it would be a real treat if you were to give us your calibration and measurement data so that we can examine the nuances beyond the statement that the course was 355.75 feet overlength. That does not tell much at all. Especially since there were two measurers on the ride (or were there? Who is Wallach?).

Your statement #6 implies that I am racist. Somewhere you have gotten the idea that I think only Americans know how to measure race courses. Not so! Two of the best measurers in the world, to my personal knowledge, are Lennart Julin of Sweden and Helge Ibert of Germany. I would stack them up against the best Americans I know. And I know many Americans I would not ask to measure a cowpath. Even myself on a bad day! It depends on the individual, not on his race or organization.

I urge you to obtain and read a copy of our 1983 report of the measurement of the Los Angeles course. You will see that we were our own severest critics, and by no means agreed on the proper course. We do not reserve our criticism for non-Americans.

Why not organize a group of Oceanic and Oriental measurers and come to Honolulu during our TAC convention this December? It would be a grand vacation for you, and a rare chance for lots of us to meet one another.

Think about it. We'd love to have you.

Best regards,





The  
Athletics Congress  
of the USA

*including Track and Field, Long Distance  
Running and Race Walking for  
men and women and boys and girls  
at all age levels.*

3535 Gleneagles Drive  
Augusta, Georgia 30907  
(404) 860-0712

Dear Pete,

February 3, 1987

I am responding to your letter of January 26, 1987 on the subject of "pre-validation". I have grown a little apprehensive of this term. In general, we are talking about a measurer of repute traveling to an important road race to conduct a measurement check of the course and to stay for race day and verify that the measured path was run. In my opinion that is only a measurement check and a verification of the path being run until a national or world open or significant age group record has apparently been set. The validation process is set in motion when the race director submits the records application and complete results to TACSTATS. Obviously the measurer's findings will become an important part of the validations process.

As the Validations Chairperson I am responsible for selection of the validator and the coordination and funding of the trip to the race course to be validated. If the race sponsor has agreed to pay the cost of a "pre-validator", then it may save the RRTC validation funds and speed the process of preparing any pending road race record for ratification.

I do not object to this pre-race procedure. In fact I encourage it, but I want to make it clear to all concerned that I expect to be kept informed and given the courtesy of providing input to the proposal. The person traveling to the race must be a measurer, reviewer/certifier, or validator of proven measurement and communicative ability whom I might have chosen. I don't want to see the race director waste money on a person as a pre-race measurer whom we did not have full confidence in should a validation report become necessary.

There have been some validation measurements approved in the past that were done by RRTC officials with whom we've had no direct measurement experience. They may be just fine but all potential validators should have a seal of approval by an experienced measurer who can attest to the riding ability of the prospective validator. I am also concerned that he understand the validation procedural differences from those of an original measurement.

There are a number of RRTC persons questioning whether they can conduct a measurement check on their own and at their own expense. Usually it is a case of knowing the race circumstances well enough to be somewhat concerned over the stated length of the course. As long as the measuring official makes it clear that they are performing a self-generated action and not an official national validation measurement, I see no problem in such a check.

I really do not think we should formally adopt a pre-race validation procedure since we have no basis for validations until the record is set. A pre-race measurement check and path verification may not be a waste of time and money since state records may be set and the same path verifier may be able to return the following year and not have to re-measure again.

In summary as an answer to your question - it seems to me that all is in order "to give the race directors what they want" if they follow procedures as I outlined them and requested of the RRTC members.

Sincerely,

Sally H. Nicoll



**The  
Athletics Congress**  
of the **USA**

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

WAYNE B. NICOLL  
3535 Gleneagles Drive  
Augusta, Georgia 30907  
(404) 860-0712

January 20, 1987

Dear Pete,

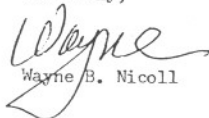
I just reviewed the December 10, 1986 letter from Tom Ferguson to Bob Baumel and Bob's January 4, 1987 reply. One of Tom's subjects is the AIMS measurement of the Honolulu Marathon course prior to the 1986 event. Apparently an Australian measurer, Ken Galloway, and an American, Len Wallach (I'm not sure what Len's role was) came to Honolulu and, on the day before the wheelchair event, conducted a measurement of the Honolulu Marathon course. It appears they made no attempt to contact the RRTC officials (Tom Ferguson or Gordon Dugan) or the course measurer to let them know of their plans. I wonder where they got their certified course data to locate the key points, etc. To date a copy of a validation report has not been sent to either Ferguson or Dugan. I think AIMS needs a lesson in common international courtesy. I cannot imagine making an AIMS course validation trip to another country and not informing our counterparts of the impending measurement.

I found the measurement procedure to be interesting since I recently conducted a validation check of the Orange Bowl Marathon by accompanying the wheelchairs which in this race had a five minute head start on the runners. I can assure Tom and Gordon that unless there was a major foul-up on barrier placement the measurement will probably be long. My figures showed the course to be about 100 meters over the standard distance but I have no doubt that riding at the quicker pace on curves, turns, and around barriers as directed by police definitely made the course appear to be longer than its stated measurement length. Its highly likely that Galloway's figures reflected a "long" course.

So what's the big deal over the measurement? Tom Ferguson makes a good point. Let's assume Galloway prepares a validation report stating that he found the marathon course to be 92 meters over the standard distance. Further assume that the race director of this AIMS event receives a copy of the report, notes the report of overlength, and subtracts 50 meters from the 1987 course prior to the event without consulting any RRTC official. The course is probably 8 or more meters short by now. We definitely need the establishment of some international measurement protocol.

Sally Nicoll, the RRTC Validations Chairman, now has the responsibility of validating some American records set on Canadian courses. Obviously we are not going to validate the measurement of Canadian courses, or vice versa, without the establishment of some mutually acceptable procedures. Perhaps Allan Steinfeld can assist us with this matter.

Sincerely,

  
Wayne B. Nicoll

## ADJUSTED TIMES FOR RECORDS?

For years Bob Letson has felt that our way of maintaining records is too harsh, in that very minor discrepancies can throw out very major running efforts. The most obvious example of this is the case of Alberto Salazar's run at the 1981 New York City Marathon. Salazar's time was a world record. The course was later remeasured and found to be short by 100 to 200 meters. The record was not ratified by TAC.

It is an easy matter to calculate a time that Salazar would have run if his course had been a full marathon. And that time, although a bit more than what he actually ran, would still have been a WR.

It is probably too much to expect that a record system could take such variables into account, especially since we cannot measure with exactness. Indeed, I would not welcome the chaos that I think could result. I personally prefer our present system.

However, the number of courses where an important record is set, and later rejected for a short course, is small. In those cases it might not be difficult to provide information concerning actual course length to the media so that those - like T&F News - could publish more accurate statistics.

It would be child's play to provide adjusted times for those few performances that were affected by short courses. And they would be better listed in their adjusted form.

What should be done about courses such as the Beijing one, in which splits indicated a discrepancy but the overall times were very fast, is a puzzler. At present there is no requirement by IAAF for any checking or remeasurement after records are set. Beijing, although measured and observed by an IAAF measurer, has enough shadow of doubt that a validation would be nice.

I suspect, however, that we are going to have to wait a long time before we see an international validation program. I can only hope that the press continues to cast aspersions at those courses that have fast times and refuse remeasurement.

## VALIDATED, VALIDATED BUT SHORT, NOTEWORTHY

One way around the question is for three kinds of lists to be kept for great performances. The first class would be actual, accepted, ratified records in which a check of race procedures and a remeasurement were performed.

The second class would be those in which the course was found slightly short but the time was adjusted to account for it.

The third class would be any performance in which the course and procedures were not checked after the performance.

The objective here is simple truth. True records, I believe, should have fairly rigid standards, but "media records" are going to be kept by whatever standards those media choose to apply. Can we assist in this by giving them as much truth as they can handle?

And, is it a good idea to adjust times for record-keeping purposes?

#### HOW FAR DID THEY RUN?

HUMOR me. Tell me either that the 2:08:13 listed for Alberto Salazar under All-Time World List on page 44 of your January issue is a misprint/oversight (the fact that it does not appear under American Records on p. 14 of the same issue suggests so) or that you have secretly retained Fred Lebow as your new road statistician.

*Dan Brannen  
TAC Road Running Tech Committee  
Wallington, NJ*

*(Ed: Yes, we know that the Salazar mark is short by today's strict road measurement standards. That's why we give it no record status. On the other hand, you must note that of the 9 other marks in the all-time world top 10, only 4 of those are known to have been measured and validated according to TAC standards. Why should we judge Salazar more harshly than runners from other nations? Simply to remove all those marks would leave the event without any historical significance. It's a problem which will heal itself with time.)*

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*[Surely you have a strong opinion on something in our sport. Why not tell us? Send all letters to "To Box 296," Track & Field News, Box 296, Los Altos, CA 94023.]*

*Track & Field News  
February 1987*

## **Running Commentary**

JOE HENDERSON, Editor

It could take a long time to remove last year's Beijing marks—now third and fifth fastest, and even more questionable than Salazar's.

**Feb. 19, 1987**

1 March 1987

Dear Pete,

Glad to hear that you are bringing your wife Joan with you for the TAC meeting, and considering spending a few extra days to see some of our lovely state. Hope other members of the RRTC will do the same. A few notes at random:

1. Re the measuring contest. Your hotel, the Hawaiian Hilton is ideally situated for what should be a good course, quite safe and long enough, but not too long, to provide a challenge for guessing the distance. In the Guide to Oahu magazine there is a map on page 82 -83 (Waikiki Resturant Map). Under the M of the map you will spot Kalia Road. This is the exit/entrance into the Hawaiian Hilton. The course would start at the traffic signal on the opposite side of the street, proceed in a counter-clockwise direction to Saratoga Road (a little hard to see as the map folds at the point). Turn left on Saratoga and walk to Kalakaua Avenue and again turn left. Keep on Kalakaua to Ala Moana Boulevard turn left and walk until you reach Kalia Road again and proceed to starting point. This is one big loop, sidewalk all the way (as you will note, the course circles Fort DeRussy). Distance? We are not sure but it may go upwards to .75 of a mile. We can easily put in a 100 to 200 meter "calibration course" along Kalia Road.

3. There is one item of major interest for all runners who may be attending the TAC meeting. Sunday, 13 December 1987, will see the running of the 15th Annual Honolulu Marathon. This race starts at 0600 hours (the course runs by the Hawaiian Hilton on Ala Moana Boulevard which is roughly 5 KM into the race), and all the "hot shots" could be back in the hotel by 0930 or 1000 hours at the latest! Marathon week is quite interesting out here as they have a 5 mile couples race on Thursday or Friday (the men run in one direction on the loop course and the women the opposite). There is a huge pasta dinner at Aloha Tower on Friday night, and in between at the Race Headquarters and Kapiolani Park (the finish line - this is at the intersection of Kalakaua and Monsarrat Avenues as shown to the extreme right on the Waikiki map) there are all sorts of promotional booths.

4. Where to go for a "restful vacation." Personally Doris and I prefer Kauai as it is "laid back." Of interest is a trip to the Waimea Canyon, and a hike along the Na Pali coast (directly North on the Kauai map). You merely drive out to the end of the road at Ke'e Beach and start climbing the trail. Beaches are generally good on Kauai. Another attraction is a Zodiac ride which goes for a few miles up the Na Pali Coast. Our daughter and her family took this a few years ago and found it exciting, and a bit on the "rough" side with motion sickness.

5. Maui. The trip up to Haleakla to see the sunrise is a must for us when we go there. Then there is a drive to Heavenly Hana - a real throwback in time, narrow winding road over some beautiful scenery. This ends with a visit to Charles Lindberg's grave (about 10 miles beyond Hana). This is a one day trip all by itself.



There are other spots to visit, but if you like the water, the Hotel Intercontinental at Wailea (the one mentioned in the travel package) is one of the best in all the islands. This is a first class hotel, all the way, and in an extremely beautiful setting. There is an exciting special bicycle ride from the top of Haleakala down to the sea - this is an all day trip with a ride to the top of the mountain then a picnic along the way with the long ride of about 20 miles or so "coasting" through some pretty scenery.

6. The Big Island (Hawaii). This probably has the most to offer, at least for us, in the way of pure recreation. The trip to the Volcano National Park is a must. Doris and I enjoy walking over the many trails they have, and getting close to an active volcano is exciting. The Big Island is "big," and most people are always in a hurry so they miss much of what is worthwhile to see. Kona, which is where the hotel listed in your travel package, is a small tourist area and often crowded. When we went over two years ago, we stayed at the Mauna Kea which is about 25 miles out of town. This, like the Maui Intercontinental is FIRST CLASS, BUT, and I emphasize BUT expensive. Two years ago when the tourist count was down (this was in August), they offered a special for Hawaiian residents only and it was so inexpensive we dropped everything and took off.

7. Oahu. This may surprise some people, but we have the best beaches in the State. Many of which are practically empty most of the time! Once you leave Waikiki, you are practically "in the country." Doris suggested two fairly good hotels outside Waikiki that could be of interest. First is the Turtle Bay Hilton on the North Shore, and second the Makaha Sheraton on what we refer to as the Leeward Coast. Turtle Bay, in December, offers the opportunity to see the "big waves" at two world renowned surfing spots, Sunset Beach and Waimea Bay. Also about the time you would be here, is a series of surfing contests - and these are fun to watch. Makaha also has big waves, but it is no longer popular with the off-island surfers for reasons known only to them. While a car would be desirable on Kauai, Maui or the Big Island, our Honolulu City bus system works well here on Oahu. For 60 cents ( I think that is still the fare) you can go anywhere, with good schedules. Many of the runners who come over use this as the way to see the island - inexpensive and interesting. Of historical interest here is the Arizona Memorial honoring those killed on 7 December 1941, the National Cemetery of the Pacific (or was we refer to it The Punchbowl) for an impressive appreciation of those who lost their lives in the service of our nation, the Iolani Palace, the Bishop Museum, the old Missionary homes, the Honolulu Zoo, and in all probability some wonderful musical concerts and programs. There is much to do on Oahu! Incidentally, the Punchbowl is the most popular tourist attraction in the State - hard to imagine going to a cemetery would be that attractive, but it is because of the view of the city from the lookout. A special attraction for some is body surfing at Sandy Beach - no skills required except to know how to swim in the surf! A little more relaxing is snorkeling at Haunana Bay - this is a protected little bay and has lots of interesting fish to see.

8. Food. Waikiki, outside the hotels, has hundreds of places to eat, and the prices vary from quite reasonable to awfully expensive. For example, almost across the street from the Hawaiian Hilton is the Wailana Coffee Shop - we have never been disappointed there for a breakfast or lunch, and the cost is quite inexpensive. Close by is a small place called the Pancake House, Gordon's favorite for something after a race, and before a marathon for carbohydrate loading. But restaurants abound in the area. More importantly they are open when you want them to be.

9. Shopping. Plenty right at the doorstep - well almost. The Ala Moana Shopping Center is about ten minutes walk away, and it is one of the largest in the U.S. As you would expect, the gift selection is excellent. Since tourism is our number one "industry," every effort is made to provide something for our valued customers. One of the other more popular areas for tourists in Waikiki is The International Market Place. This is quite large and has plenty of shops in which to pick up a memento of the Hawaiian vacation.

10. Weather. December is generally cool - in the 70's. The chances of rain are high, but this would not interfere with anything you might wish to do. Somehow the sun generally comes out every day in Waikiki - not so where we live

11. Clothing. Travel light! Many of us wear shorts and "T's" the year round. Slacks and sports shirts (aloha out here) are acceptable in all but one or two restaurants (you would not want to go there anyway - too costly).

12. For the military retiree (I suspect Wayne Nicoll may be the only one in the RTTC at this time), the Hawaiian Hilton is next door to the Armed Forces Hale Koa hotel complex. This has a well equipped Post Exchange, and a number of eating places. But, the prices are quite high considering the hotel is supposed to be for service people and their families of all ranks. The poor enlisted men pays as much as the "brass" (except for a room - there it is on sliding scale according to rank). The stretch of beach in front of the hotel is one of the largest in the state, and is well maintained. Although, for comparative purposes, the sand in front of the Hilton is superior to all in Waikiki.

14. Car rentals are quite reasonable and in some cases lower than on the mainland. While the Bus service is good here on Oahu, it is non-existent elsewhere.

If there are any other areas in which you would like some suggestions or comments, please feel free to drop a line and I will try to provide an answer.

~~Warmest~~ Alohas,

Tom