

Measurement News



March 2002
Issue #112



Dave Cundy traveled to Japan and Cambodia to instruct and measure. Here we see him measuring the Angkor Wat Half Marathon. Note ancient ruins. See Dave's story inside.

MEASUREMENT NEWS

#112 – MARCH 2002

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Subscription cost:

MN is sent free to RRTC officers and certifiers,
and AIMS/IAAF measurers. Others may obtain
MN by sending \$20 (for a one year subscription
- six issues) to Pete Riegel.

Course lists for individual states may be
obtained via email, free. Contact Pete
Riegel at: Riegelpete@aol.com

Deadlines

Material intended to be included in the May 2002
issue must be in the Editor's hands by **April 25**. Next
issue will be mailed in early May.

ONLINE MEASUREMENT FORUM

All it takes to become a subscriber is access to email.
Simply send to MNForum@aol.com with "Subscribe
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Visit the RRTC website at:

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be downloaded from this site.

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ABOUT MEASUREMENT NEWS

Measurement News (MN) is the newsletter of the Road Running Technical Council (RRTC) of USA Track & Field (USATF). MN is our way to talk to one another, so that we all know what's going on.

MN is also sent to many foreign measurers associated with AIMS and IAAF, who are also invited to participate in the dialogue.

MN is published bimonthly beginning in January (six issues per year).

If you wish to reproduce or report on anything in MN, go ahead, but an attribution would be appreciated.

MN wants to make road course measurement as good as it can be. All opinions and grievances are solicited. No cows are sacred. If you have a new measurement technique, or if you think things should be done differently, send in your contribution to MN. Your opinion will be given space. Nothing changes until somebody tries!

Electronic copy or clean typed material is most welcome, but send what you can.

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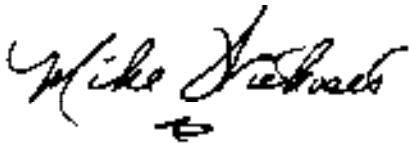
Chairman's Clatter - From Mike Wickiser

A few months back Ray Nelson; certifier for MA and RI was hit by a car while measuring a race course. Ray was pretty banged up with a tear in his lung and several cuts and bruises. He is recovering but the question of insurance for measurers was raised. As I understand it, insurance coverage is provided to USATF members while measuring a course for a sanctioned race. There is also coverage for IAAF course measurement. Explanations of supplemental insurance for course measurers are included in this issue. My thanks to Phil Stewart for raising the question and to Pete Riegel for getting the international IAAF info.

There has been a flurry of discussion recently over the course list. This continuing saga over Y2K and leading zeros has brought about a few changes. A column has been added to the master course list for YEAR of CERTIFICATION. That new column can sort the list so that the chronology is maintained. I have included the new Year of Certification column in this issue's new certifications. Since the "YEAR" column is pretty much a given, and the width is a concern for MN, it will probably not be included in future issues. The concern over loss of leading zeros from the certification code has also been addressed. This happened most noticeably when the LDR search engine was used. Basil Honikman maintains the LDR search engine. By sending him the original Excel file with all active courses, there is no need to reformat from a downloaded text file and the complete course ID code number now shows up.

One other change is being worked on at this time. A search engine for the RRTC web site is being looked into. With our own search engine, it should be possible to add enhancements to suite RRTC's needs. It may be possible to pull up non standard distance courses, something New Englanders should appreciate, or even look at all the active courses for a given state. Since this project is being developed, let me know if any one has ideas for changes or enhancements.

Bill Glauz noticed a couple of 1999 courses that weren't listed. He notified me and made copies for Tom McBrayer and for the Registrar. These courses are included in this issue of MN. They will be included in the Active and Master course lists. As good as the USPS is, the mail does get lost from time to time. Last year I got an empty envelope from Tom McBrayer. That envelope HAD contained several certificates. Tom had copies of course but it was necessary to determine which certificates had been lost. If I hadn't received that torn and empty envelope, quite a few certified courses would have been omitted. 2001 ended two months ago and 2002 course certifications are coming in so certifiers clear your desks and get any of those certificates in the mail to your Vice Chairman and, please check the new course listing regularly.



Japan Journal

By Dave Cundy, IAAF/AIMS Course Measurement Administrator, Asia & Oceania

I had my first experience of measuring in Japan during an intensive 17 day period from mid-November through to early December. I arrived in Tokyo on the morning of 17 November with the following itinerary - Tokyo Women's Marathon on the 18th; Lake Kawaguchi Marathon on the 20th; Kobe Half Marathon on the 23rd; Amagasaki Half Marathon on the 25th; a side trip to Cambodia to measure the Angkor Wat Half Marathon on the 28th; then back to Japan for the Fukuoka Marathon on the 2nd December.



Mr Iizuka (standing on tape) with Dave crouching behind him, taking notes.

It was a rewarding experience, providing me with an opportunity to work with Japan's only Grade A measurer, Mr Iizuka, and a number of Grade C measurers, who I was assessing with a view to recommending some of them for upgrading to IAAF Grade B measurers. I was fortunate to be accompanied by Mr Yoshi Nakagawa during my first four measurements. Although not a measurer, Mr Nakagawa had a good understanding of both measurement procedures and English, so he was able to use his interpreting skills to help settle a number of differences during post-measurement meetings.

Tokyo Women's International Marathon

Pete Riegel was the last international measurer to ride this course, doing so back in 1996. The course is used for three events - Tokyo Men's International in February; Tokyo/New York Friendship Marathon, also in February but not to be held in 2002; and the women's marathon which I was to measure on race day.

As always in Japan, arrangements for the Tokyo measurement were first class. The same format was followed for each of my measurements - a measurement meeting, measurement of a calibration course and a course tour on the afternoon preceding measurement day, then the standard

measurement practices on measurement day with another measurement meeting following the measurements to compare results and discuss adjustments. On each occasion in Japan, I was joined by three Grade C measurers.

At our pre-measurement meeting, we always agreed on the order for the riders. Generally I rode at the rear so that I could assess the riders ahead of me. It also did not make sense for me to be the lead rider because I was not familiar with the courses.

It is common practice in Japan to do the official IAAF/AIMS measurement on race day but, for me, this was a new experience. The plan is to measure just ahead of the lead runners, in most cases this being 3-4 minutes, although I was looking over my shoulder on a few occasions as we were delayed because of late road closures.

Road closures in Japan are quite different to those I experienced in Sydney for the Olympic Games. There we had the roads locked down at least one hour before the start gun. In Japan, it was indeed a rolling closure with traffic being cleared just minutes ahead of the lead runners and heavy traffic again lined up behind the police bikes at the tail of the field, putting what I would have thought a fair bit of pressure on the last runner!

One obvious advantage in a race day measurement is that you do get to measure under race conditions, so generally I was very happy that I had experienced the best possible ride on a particular course.

My only concern with this measurement was the pre-calibration process. First, it was undertaken at 10.05am to allow us to measure the start/finish sections of the course within the 1964 Olympic Stadium, and clear the track before preparations were finalised for the race start at 12.10pm. As I anticipated, we finished the Stadium measurements by 11am. The plan was not to calibrate again until after the race, but I did squeeze in another calibration ride immediately before the race start. I had to insist this was necessary because our initial pre-calibration was undertaken in heavy traffic and we had no option other than to do our four rides in the same direction. When measuring the 400m course on the previous day, I had assumed we would have had road closures, or police assistance, so I did not foreshadow this problem.

The calibration course was on the actual marathon route, just prior to where the runners returned to the Stadium. This made the post-calibration easy because we were able to do this while the road was still closed.



In Tokyo the order of riders and measurement results (all measurements throughout the trip include the SCPF) were as follows:

Kazunori Hiratsuka – 42.191 kms
 Mitsuo Iimura – 42.193 kms
 Dave Cundy – 42.183 kms
 Hideaki Karikomi – 42.180 kms.



The measuring group in the Olympic Stadium.

Whereas the measurements provided good agreement, the follow-up meeting took a little more time to reach similar agreement. My immediate assessment was that the 2001 course met international standards as it was at least 42.195 'real' kms but an additional 15 metres should be added in future years to ensure the full SCPF is incorporated. Mr Iizuka was able to advise through our interpreter, Mr Nakagawa, that he had been trained to average the four measurements and then adjust in accordance with that outcome. In this case it made minimal difference but I was keen to resolve this issue in the knowledge that I had another five measurements ahead of me.

In the end we agreed to settle the adjustment for future years after reference to my international counterparts. I have

always been happy to look at these matters on a case by case basis but I sensed the Japanese wanted a hard and fast rule and were not keen on my flexible approach. I was also interested in how others would adjust in these circumstances.

Of course, it is always difficult to explain that a course was long enough today but should be lengthened next year, even without the problems of language.

Lake Kawaguchi Marathon

At midday on Monday we left the Akasaka Prince Hotel in Tokyo and drove to Lake Kawaguchi, at the foot of Mt Fuji. A truly spectacular setting for a marathon. In the afternoon we laid out the standard 400m calibration course, surveyed the marathon course and discussed arrangements for an early measurement on Tuesday. This time it was not a race day measurement, and we had no police assistance, so we were in for a more difficult time.

Our problems started immediately after our 6.15am calibration ride. As we set out on the marathon course, I took up my position as fourth rider. The first three riders left the car park area at the start line and immediately crossed to the left of the road to ride with the traffic. At the rear I took it more slowly and started to cut each corner, picking the gaps between the cars which were travelling in both directions. After all, I had been told on the previous day that runners had access to the full width of the road around the lake.

I quickly advised the people in the vehicle trailing me to go ahead, stop the other cyclists, who by now were a long way ahead, and ask why they were not taking the shortest possible route. We eventually regrouped in the car park and much discussion followed. I was indeed fortunate to have Mr Nakagawa to act as my interpreter. Even with his help, at one stage we were going to abandon this measurement because it was too risky to measure the shortest route. After some time I was advised that the runners actually do run on the left side of the road, with traffic running on the other side during the race. Mr Nakagawa advised that he was mis-informed the previous day and had given me incorrect information.

At least this gave us a solution and we went ahead with a dangerous, but spectacular, measurement. During the early kilometres we were fog bound but eventually the fog did lift, the temperature rose above zero Celsius, and the sun came out to highlight the symmetrical slopes of Mt Fuji and the brilliant autumn leaves of the trees on the surrounding hills.

Our results, in rider order, were:

Naoki Kobayashi - 42157
 Yoshitaka Kuwahara - 42109
 Misuo Iimura - 42120
 Dave Cundy - 42156

My post-calibration constant actually increased by 40 counts, despite a rise in temperature of 12C degrees. Obviously I had a slow leak so I explained to the Japanese that my measurement must be discounted. If my measurement was not to be considered, I also explained that Mr Kobayashi's measurement should also be discounted because of the similarity in our results.

After considerable discussion, I agreed to average the two lowest measurements, giving us the result that the course was 80.5 metres short. If we had accepted the lowest measurement, the course would have been 86 metres short. We had to have an immediate solution because the course needed to be adjusted as the race was on the following Sunday.

The adjustment caused further difficulties because there was insufficient room at the start, finish or turn point to add 80.5 metres. Eventually a solution was identified - re-route the first lap (it was a two lap course) slightly at one point to make up as close as possible to the 80.5m, then adjust the start line by a few metres, if necessary. As we had to catch a bus back to Tokyo, I was unable to oversee this adjustment and it was left to the local measurer, Mr Kobayashi, to make the adjustment using a steel tape. He was to prepare a report outlining these changes. When I receive a copy of this report, I will be able to assess the changes and, if appropriate, issue a certificate for the 2001 race.

Kobe Half Marathon

After an overnight stay at the Shinjuku Washington Hotel in Tokyo, I was on the bullet train to Osaka on Wednesday morning. I was met at the Osaka station and we transferred by train to Kobe, a city in its own right but really an adjoining suburb of Osaka. Here I had a 24 hour break before our pre-measurement meeting and calibration measurement on Thursday afternoon.

This gave me an opportunity to explore Kobe, which was devastated by earthquake in 1995, with some 40000 people losing their lives and 250000 losing their homes. The Kobe Half Marathon was part of the Kobe 2001 celebrations to show the world that Kobe has recovered from the devastation of 1995.

During our calibration measurement, I finally understood why I could not always convince the Japanese to nail the end points of their calibration courses. Mr Nakagawa explained that the Japanese always have many helpers (I counted 16 on one occasion) and they generally use these helpers to measure fresh calibration courses immediately prior to a measurement. We taped each end and removed the tape when we were satisfied that there was no longer any need for the calibration course.

The Japanese also used an interesting technique when laying down their calibration courses. They would tension the steel

tape, mark the masking tape, then release the tension. After giving the steel tape a few shakes, they would tension again and mark the masking tape, always using a small ruler to accurately make their marks. They would repeat this process a third time if they did not get 100% agreement when tensioning the steel tape the second time. To my mind, this provided two measurements of the calibration course.

Our measurement of the half marathon was to be done in the early hours of the following morning (Friday) to avoid the heavy traffic. We met at 2.45am to calibrate before setting out on our measurement at 3.30am. Again I took up position at the rear of the group of four. All was incident free until around the 12 km mark when I punctured in the back tyre. Normally this would not be a drama except on this occasion the Japanese, who normally have all bases covered, had no spares so I had no option other than to load the bicycle and watch the Grade C measurers complete the measurement.

The measurement ceased at the 21 km point as the final 97.5 metres was to be measured by steel tape at the time of setting up the finish area. It was in a hotel courtyard and we did not have access to that part of the course on this particular morning. The C Grade measurers did another good job, providing the following data:

Toru Ikeda – 21.018 kms
Yoshiki Matsukawa – 21.009 kms
Kimitake Ueda – 20.998 kms

We agreed that we would accept Mr Ueda's data and the turn point, situated near the 16 km mark, would be extended by one metre.

Amagasaki Half Marathon

Like Kobe, Amagasaki is basically a suburb of Osaka. On Saturday morning, accompanied by Mr Nakagawa, we caught the train to Amagasaki, which was only about 20 minutes back towards the city of Osaka. At our measurement meeting in the New Archaic Hotel, I discovered that a significant proportion of this course was on dirt roads. Fortunately the dirt section was out and back along a river bank and was closed to traffic. We agreed to measure a 400m calibration course on the dirt, calibrate our bicycles, measure the approximately 10 kms of dirt road, and re-calibrate on that afternoon. As it was already 3pm, we moved quickly and completed this task in the fading light.



Getting set to measure the dirt calibration course.



Carrying the tape between measurements.

On Sunday morning we laid out a 300m calibration course on the sealed surface, using a back street near the Stadium where the event was to commence later that morning. As we did not have the traffic problems of Tokyo, we were able to calibrate much closer to start time, go to the start line, measure out of the Stadium and wait on the roadway outside the Stadium until immediately prior to the race start at 10.30am.

This was a point-to-point course and we had an easy ride of not much more than 10k, omitting the dirt section which ran from about 8 to 18k. To my relief, I completed both rides

without puncturing so we were able to compare the data from four measurers:

Measurer	Dirt out	Dirt back	Sealed	Total
Toru Ikeda	5.055 km	5.052 km	10.972 km	21.079 km
Nishida	5.053 km	5.052 km	10.976 km	21.081 km
Matsukawa	5.054 km	5.050 km	10.970 km	21.074 km
Dave Cundy	5.052 km	5.051 km	10.967 km	21.069 km

After considerable post-measurement discussion, I accepted the 2001 course based on the average of all four measurements, which gave a distance of 21.076 kms. Again I indicated that I would like to float these results with my international counterparts but I did recommend that the course be extended by no less than 21.5 metres in future years. This measurement demonstrated the risk associated with relying on race day measurements.

Angkor Wat Half Marathon

On the following Monday morning I left Osaka to fly to Cambodia, travelling via Bangkok to Phnom Penh. I was joined by a team of Japanese who worked for the 'Hearts of Gold' foundation who were responsible for the organisation of the Angkor Wat Half Marathon. This race is a charity event, raising money for the victims of landmines. Also in the group was Francis Kay, a good friend from NZ who had travelled to Amagasaki and Angkor Wat to photograph participants for his Marathon-Photos.com business.

We had a stopover on Monday night in Phnom Penh, just enough time to have a quick look on Tuesday at this city which is still recovering from the atrocities of Pol Pot in the 1970s. We then caught an evening flight to Siem Reap, the site of the Angkor Wat Half Marathon.

On Wednesday we laid out the regulation 400m calibration course, then rode one of the most spectacular courses you would find anywhere in the world as it wound its way through the ancient 8th and 9th century temples of Angkor Thom and Angkor Wat.



I was joined by Toru Ikeda, with whom I worked quite closely at Kobe and Amagasaki, and Pov Hoc. Pov was from Phnom Penh and had attended a seminar that I conducted in Indonesia in 1999. I was pleased to find that he was practising the skills that he learnt in 1999.

We had an interesting ride, managing to avoid elephants, monkeys and the hundreds of motor scooters that invade the roads of Cambodia. It was my understanding that we were measuring the same course as was certified in 1996 so it came as a surprise to find that my measurement found the course to be 1388 metres short, with Mr Ikeda providing good agreement:

Toru Ikeda – 19.716 kms
Dave Cundy – 19.710 kms
Pov Hoc – 19.761 kms

I had noted that Mr Hoc rode a very loose line so I was satisfied that the course was significantly short. We had already measured the 400m calibration course twice, but we did a third check just for safety. No error was revealed. I rode the bicycle over one length of the 50 metre tape that we were using, and compared this to a full ride over the 400 metre course. Again, a good comparison.

According to my data, the 5 km splits were 4.613 km; 4.659 km; 4.670 km; and 4.701 km. This points to a possible calibration error in 1996 but I have since checked that data and there is no obvious error. I haven't got to the bottom of the problem but I now suspect that the turn point, which falls between the start and 5 km has been incorrectly marked and possibly each 5 km mark has also been misplaced. Reference points are difficult with few obvious references in the jungle surrounds but I do have some reasonable references for the future.

We spent the following day, Thursday, riding the full course again and making very significant adjustments using calibrated bicycles. I was to have a free day on the next day (Friday) before an overnight flight to Bangkok and Fukuoka but, in between playing tourist at the temples, I documented some key points and continued to scratch my head as to why the 2001 measurement provided such a different outcome to the 1996 measure.

Fukuoka International Marathon

I arrived back in Japan on Saturday morning with just one more event to complete, the 55th Fukuoka Marathon. We followed the same procedures, measuring a 400m calibration course, with police assistance, on Saturday afternoon, then driving the famous Fukuoka course.

As was the case in Tokyo, we had to pre-calibrate relatively early on Sunday. Arrangements had been made with the police to provide assistance as we rode the calibration course at 8.45am. I counted 11 police patrolling the traffic as we

rode up and down the calibration course. I immediately understood why the arrangements put in place to calibrate at this time could not be easily changed!

Following the pre-calibration, we measured the start and finish sections within the Stadium, completing this exercise by 10am. Then we had to park the bicycles and wait for the 12.05pm race start before we could continue the measurement on the roads. I would have liked to fit in another set of calibration rides but this was not possible.

The measurement during the race was again uneventful, other than my concern that, if the Olympic and World Champion Abera was on world best pace, he would be within 90 seconds of us at the 25 km mark. Fortunately he was running with the pack and the pace was slightly slower!

We did have one interesting post-calibration. Mr In's working constant was 11012 and his finish constant 10939. The temperature had increased by 5C but this went nowhere near explaining the huge decrease in counts. He was using a relatively new bike which was a cross between a mountain bike and a tourer. It had conventional tyres, not the big knobbly tyres often used on mountain bikes.

There seemed only one explanation for this very significant change. I had noticed that an acquaintance of Mr In had approached him in the time between our Stadium measurement and the race start. He had with him a pump, which he offered to Mr In. Mr In did use this pump on his rear tyre but I suspect that the acquaintance may have already found the unattended bicycle (we had left the bicycles within the Stadium track) and already pumped up his front tyre, without Mr In's knowledge. I'm awaiting clarification to see if my suspicions provide a legitimate explanation for the behaviour of the tyre.

I did recommend that Mr In use his working constant to calculate the distance of our Stadium measurements (start and finish) and his finish constant to calculate the out of Stadium sections. In fact, I thought this a reasonable outcome as we had pre-calibrated at 8.45am, then immediately measured the Stadium sections. We then waited until 12.05pm before commencing the road measurement, and post-calibrated immediately after we got back to the Stadium entrance. In the circumstances, I thought Mr In's figures would prove interesting. Although it was tempting to suggest each measurer calculate in this fashion, I did resist complicating my final measurement exercise while in Japan and I, and the other two measurers, calculated in the standard international way. Here's how we performed:

Ryushi Kajihara – 42.157 kms
Hiromichi In – 42.151 kms
Kazunori Haratsuka – 42.160 kms
Dave Cundy – 42.156 kms

Again, very good agreement – a sign that the Japanese Grade C measurers were riding a tighter line each time they had an opportunity to measure. Out of interest, I did calculate the length using my data but following the process I suggested for Mr In. My result – 42.167 kms.

These results demonstrated that the Fukuoka course had basically used up most of its SCPF. I did discover that the same three Grade C measurers had checked this course in 1998 with the following results:

Kajihara – 42.181 kms
In – 42.202 kms
Hiratsuka – 42.180 kms

Unfortunately, despite these outcomes in 1998, no adjustment was made to the course. I understand this was because of the thought that the course, as measured, was at least 42.195 'real' kms.

The outcome of this measurement was that I accepted the 2001 course but recommended that the course be extended in future years. Again I undertook to check with my international counterparts to see what other measurers would do in these circumstances. My view was that we accept the shortest measurement – 42.156 kms (after discounting Mr In's data) – and increase the course in future years by 39 metres.

Conclusion

Comments on approaches taken in these measurements, particularly on what we should do in the circumstances where four measurers all find a course short of the full distance when incorporating the 'SCPF', are welcome.

Supplement - Osaka International Ladies Marathon

My Japanese experiences continued last weekend when I measured the Osaka International Ladies Marathon. Similar story - we had five measurers, measured in front of the race, then spent hours discussing the data through an interpreter! For the third time in Japan, I had a bike problem. This time it was a broken chain somewhere after 30k so I had to abandon my measurement because of the proximity of the runners. We had already measured from 40k to the finish, and stopped at 30k for a reference, so I had data for everything except 30 to 40k. I was able to make a temporary repair which at least allowed me to post calibrate so I did get some useful data.

These were our results:

Rider 1 - 42191
Rider 2 - 42174
Rider 3 - 42184
Rider 4 - 42144
Rider 5 - 42174

I was rider 5 and I borrowed Rider 2's data from 30 to 40k. Up to my chain breakage, our data had been very close.

(Another way of looking at my measurement was I actually measured 32175 metres when it should have been 32195, but that assumes 30 to 40k was precisely 10k, and no measurer came to that conclusion). Also I had previously measured with rider 2 and found him to be one of the best of the Japanese C graders. As you see, after borrowing his 30 to 40k data, we got a perfect match!

The low measurement by rider 4 has me stumped. We measured in two steps. Early in the morning we pre calibrated, then measured from the start to 3.2k, then from 40k to the finish, then post calibrated. Later in the morning we pre calibrated, then measured 3.2k to 40k, then post calibrated again. With little temperature variation, there was minimal difference between pre and post calibration figures for all riders, right across the 4 calibration rides.

Rider 4 got figures that agreed with mine for the early measurements but during the 3.2k to 40k section, he was consistently measuring up to 6 metres shorter for each 5k section. I was following him and he certainly did not take a tighter line at any stage.

Anyway, I chose to ignore his data and accept that rider 2 had the lowest measurement. This made the course 21 metres short so I recommended adding this distance in the future. Interestingly, if I averaged the 5 measurements, as is Mr Iizuka's strong preference, the course is 21.6 metres short. To date I have had no strong viewpoints (other than from Mr Iizuka) that my approach is not a reasonable one and I intend to continue with this procedure when I measure in Japan. My next measurement is the Nagoya Women's Marathon. There is another interesting sideline. The course seems unchanged from 1997, when Andy Galloway measured. On that occasion 3 measurers found the course short by 49m, 70m and 52m respectively. On that occasion Andy opted to average the 3 measurements and concluded that the course was 57 metres short. This was to be added at the start. In fact the start line had been adjusted by 31.27m, and not 57m. So, if they add 21 metres in the future, we have excellent agreement with Andy's team measurement in 1997.

Best wishes, Dave

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NAVIGATION

A Satellite Speedometer For Those on the Fast Track

Skiers who have long wondered how fast they are telemarking down the piste can now figure it out with a new Global Positioning System tool. Timex's Ironman Triathlon Speed & Dis-



tance System combines a G.P.S. sensor and a full-featured digital watch to enable skiers, joggers, bicyclists and even swimmers to track their speed, distance and pace accurately.

The G.P.S. sensor is strapped to the arm or waist; distance and time are calculated by

continually measuring the sensor's position against that of four satellites. The information, along with the updated time of day, is transmitted to the watch via radio waves, up to a distance of three feet. The company says that accuracy is better than 99 percent as long as the G.P.S. unit has a clear view of the sky. In tunnels or under heavy foliage, accuracy drops to 95 percent.

In addition to other sports enthusiasts, the watch and G.P.S. combination is expected to be popular among horseback riders, by helping them determine how far the animal has been exercised. The system will be available in April, with models starting at \$200.

Eric A. Taub



SENT BY TOM MCBRAYER

From New York Times, January 15, 2002

AN ENCOURAGING WORD

In *Distance Running*, the AIMS/IAAF Magazine, January-April 2002, the following quotation appeared as the last part of *President's Message*, by **IAAF President Lamine Diack**:

"Both IAAF and AIMS seek to establish criteria for undisputed world bests for road running performances. Further down the road, we see the possibility of official IAAF world records for such performances."

CREDIT WHERE CREDIT IS DUE

Subj: Measurement News
Date: 2/7/2002 1:06:36 PM Eastern Standard Time
From: tgk@yescom.com.br
To: Riegelpete@aol.com
Sent from the Internet

Dear Peter Riegel,

We read in the November issue # 110 your article about the Measurement Seminar, for which we had the pleasure of your visit and valious support, and we appreciated you made it stand out on the cover.

As the organizers of the Interantional Volta da Pampulha Race, we wonder if you could publish, when you have an opportunity, that the mentioned Seminar was organized and financed by Yescom (Yescom has been chosen to be the official organizer of all street races by Rede Globo TV, for having a good work structure in the sports field). This Seminar was held estrategically in the same date as the race, and Rodolfo Eichler was the technical organizer and a great assistant for the event. In addition, Yescom estrategically organized a Workshop for more than 100 women, which was a great success too.

We hope to repeat this success this year and count on you !! Thanks a lot.

Best Regards

Thadeus Kassabian
Yescom

Dear Thadeus,

I will put your message in the March issue of *Measurement News*. It is important to show appreciation to the sponsors who make things possible.

Best regards, Pete Riegel

JONES/OERTH COUNTER PRICE INCREASE

Paul Oerth announces that due to increased price of counter components all counter prices will rise by \$5.00 effective April 1, 2002. See page 23 for details.



Course Measurement: Celebrating 2001's successes... ...and building upon them in 2002!

January 6, 2002

The first inquiry of 2002 regarding course measurement was on my answering machine on January 2, so any "off-season" there might once have been apparently is no longer. Not that I'm in any hurry to mount my bike in sub-freezing temperatures. So let's pause to digest an annual update on the world of course measurement, specifically as it applies to those who measure and administer courses in Illinois and Wisconsin.

This letter is being sent to measurers who have submitted a course for certification during the past few years, running organizations in Illinois, Wisconsin, and adjacent areas of adjoining states, as well as to individuals who have simply made an inquiry regarding course measurement over the past couple of years.

Statistics for 2001:

In last year's update I buried the statistics a little bit, but this year they deserve some space on the podium.

- 99 courses certified in Illinois. (measured by 12 measurers) This easily erases the previous record of 83, which was set in 1998.
- 19 courses certified in Wisconsin. (measured by 8 measurers) The fourth highest course count ever in the Badger State, and not far behind the record 22 certified in 1986.

In previous years I have continued to put last year's numbers on courses that were measured last year- at least until the first course measured this year arrived. But for reasons that will be explained below, let's put a cap on 2001 and give ourselves a round of applause. Everyone who contributed to the above totals deserves one.

Lessons Learned in 2001:

- *Use the right constants!* Remember that 5 kilometers is NOT 3.1 miles. 3.1 miles is a little less than 4989 meters so if you measure a 5K course as 3.1 miles it is SHORT. My suggestion to you: Dump the Imperial system and start thinking metric. Calculate your constant in counts per meter or kilometer instead of counts per mile. If you buy a steel tape to measure your calibration courses, buy a metric tape- 30, 50, and 60 meters are common lengths. Any surveyor's supply store (including mail order and online) should have them, because the US Government now requires federally funded highway projects to be designed and built using metric units. Convert back to Imperial units for mile splits and those rare occasions when you measure a course defined in miles.
- *There are issues involved in measuring tracks!* Tracks can be certified for road events longer than 10000 meters but the procedures involved in measuring them are different. If you are tasked to measure a track, please contact me and I'll attempt to walk you through it.

- *Follow the SPR!* One course failed validation this summer, largely because the validating measurer was able to measure it a lot more closely than the original measurer did. Make sure you measure less than 30 cm (1 foot) away from the curb on corners and follow the tangents between corners. It's no fun having someone tell you that your course is short and the records set on it can't be adopted.
- *It's OK to measure just part of a course- but be careful!* If, for example, you need to change only the first mile of a 5K course, it's OK to do so. There are a couple of ways to do this. One is to re-measure the affected sections of the course (twice, of course) and then measure the new course route (also twice), then add or subtract the distance at the start or finish, and adjust any intermediate split points that might also be affected. Be conservative when you determine how much you adjust the length of the course; if you are adding, choose the longest value for the length of the old course and the shortest value for the new course and if you are subtracting, choose the longest value for the new course and the shortest value for the old. Another way to do this is to measure (once again, twice) from a known point (such as an intermediate split) to the start or finish, and set that point anew. If you do this, you should have a copy of the measurement data on the old course, since you will need to be sure that the intermediate split point is in the correct place. Bottom line: if *any* of this is not clear to you, please contact me before you attempt to modify a certified course in this way. It's a lot easier to do that than to do anything like this twice.

Is there a shortage of measurers?

Maybe. The following is true:

- The vast majority of Chicago area courses are measured by one of three people.
- There are areas of both Wisconsin and Illinois that are not well represented on the Certified Course List.

Even though, from the record numbers shown above, the supply of course measurers appears to be meeting the demand for course measurement, I remain concerned that we don't appear to have a lot of "bench strength". There is always a need for additional trained and experienced measurers. People's lives change, and they, for many reasons, enter and leave the course measurement community. There are good reasons why the above statements are true, but if there is someone in your running organization who can ride a bicycle, sketch a course map, and is not afraid of numbers, consider training them to measure courses. The updated course measurement manual is posted on the Internet at www.rrtc.net; if you don't have Internet access I'll send you a printed copy. If, after reading through the manual, you still have questions, please contact me. You might also, as a club, purchase a Jones/Oerth counter and a steel tape. Measure some of your club's running routes for practice- or better yet, certify them! Convince race directors in your area that a certified course adds to the quality of their event, and that the reasons they often give for not certifying courses simply do not measure up. And if you have race directors who aren't receptive, please give me their names and contact information, and I'll do what I can do.

Clarification of the USATF Road Running Technical Council (RRTC) Certified Course Renewal Procedure:

This is taken directly from the RRTC website- and should serve as the final word on the subject:

USATF certified courses expire after ten years from original certification. Course certificates issued prior to 2001 contain renewal language and may be renewed. Courses certified in 2001 and later may not be renewed.

To renew an expired course, it is necessary to complete an Application for Renewal of Certified Course form. Forms are available for download at www.rrtc.net or from your regional certifier.

The renewal application states clear questions for the race director, original measurer or technical director (i.e., person in charge of setting up the course on race day) to answer.

The completed Application for Renewal of a Certified Course must be sent to the regional certifier along with a copy of the original certificate & map. Applications that are sent without original maps are not to be renewed.

Once the certifier is satisfied that the course is as originally measured for certification, he or she produces a new certificate for the course, using the original course number. Using the original number allows for historical identification and proper sorting of the course list.

The expiration date for ALL renewed courses is twenty years after the year of original certification but not later than December 31, 2011.

A 1985 course being renewed would expire at the end of 2005.

A 2000 course renewal will expire December 31, 2011.

How does this affect you, as a measurer or race director?

- Any course certified before the end of 2000 can be renewed for another ten years- or through December 31, 2011, whichever comes earlier, if the course has not changed.
- If a course is measured and the documentation postmarked between January 1 and the date of the event, because certifications expire at the end of the year 10 years after the date of certification, the course is considered certified for 11 runnings of the event.
- If a course is measured and the documentation postmarked between the date of the event and December 31, because certifications expire at the end of the year 10 years after the date of certification, the course is considered certified for 10 runnings of the event.
- If you measure a course in the fall for a race the next spring (which I encourage) and want to hold the application until January to take advantage of this quirk in the procedure, please feel free to do so, but you run the risk of not being able to correct a mistake before race day...
- If you send me the course renewal form, be sure to attach a copy of the original certificate, including the original course map. I will send you two copies of a new certificate (with the original course number) that incorporates the original map- and clearly states the expiration date of the course certification. Please note that if anything changes on the course map, a new certificate with a new number will be issued, and the course with the original number will be moved to the inactive list.
- There is no fee for a course renewal.

Elevation Data:

Elevation data is necessary because the 'drop' in elevation from the start to the finish of a course determines whether or not it's record eligible. The best source for this data is USGS topographic maps, which are generally available at local libraries. Another source is www.topozone.com, a web site that has patched together almost 59,000 USGS topographic maps and is definitely worth a look. Don't worry about getting this data to the tenth of a foot. If you can estimate to the nearest contour interval on the map (usually 10 feet in Illinois and Wisconsin), you've done well.

Course maps:

By and large, the quality of course maps improved in 2001. In a few cases I re-drew the measurer's course map based on information provided to me by the measurer. It's far from my favorite task, simply because it is very difficult to draw an accurate map of a course you've never seen. A well-drawn course map should allow someone who has never before seen the course to locate the start and finish and navigate the route between them. The standard which measurers should pursue is course maps that:

- Are drawn on one 8.5" x 11" page
- Are drawn in one color, suitable for photocopying
- Depict the streets, paths, etc. on which the course runs by parallel lines and the path measured by a single, unbroken line, and show the approximate locations of intermediate split points.
- Include the name of the race, the city, state, measurer's name, and date(s) measured
- Include a north arrow
- Include, on the one page, descriptions of the start, finish, and any turnaround points, with distances to landmarks, and sketches if appropriate.
- Identify, by name (or description) EVERY street or path the course uses.
- Include (especially for 10K and shorter) descriptions of intermediate splits, including metric splits in multiples of 5 km.
- Include distances from the start to turnaround points, and, if a loop course, the length of the loop, in both miles and meters.

When I receive a course map that is more than one page I take it to a copier and reduce it and paste it together until it and the necessary narrative fit on an 8.5" x 11" sheet. If I can do it, so can you. If the course is long or complicated, try drawing the map on a larger sheet and then reducing it.

Another observation: Trying to put a race course map on top of the copy of another map can lead to a very cluttered map with a lot of information not germane to the course itself. If you are tempted to do this, please consider tracing the necessary information from the map you were going to use, and drawing, by hand, a map using the above guidelines. Only in rare circumstances will you not achieve a better result.

Contacting me:

Address: 4556 Opal Drive
Hoffman Estates, Illinois 60195-1185

Telephone: 847-359-4598

Fax: 847-359-4448

E-mail: Jaywight@earthlink.net

E-mail correspondence usually elicits the quickest response. Applications for Certification are best sent by mail or fax. The fax is always on but it shares the telephone line with the modem so it may be busy from time to time. Fair warning: If you send me your e-mail address (or an e-mail note) I will attempt to contact you via e-mail, so if you don't check your e-mail regularly, it might be best to keep your e-mail address to yourself.

I serve as the certifier for the states of Illinois and Wisconsin but can certify courses in any state. If your course is in another state and you would rather work with that state's certifier, a list of certifiers is available at www.rrtc.net- or contact me and I'll put you in touch with your state's certifier.

Document Flow and Fees:

Your application should include:

- Application for Certification of a Road Course (2 page form)
- Bicycle Calibration Data Sheet (one for each measurer)
- Course Measurement Data Sheet
- Course Map
- Application for Certification of a Calibration Course (if applicable)
- Calibration Course Map (if applicable)
- Certifier's review fee of \$20 per course (no fee for calibration courses or course renewals). Checks should be made payable to Jay W. Wight, and all documentation should be sent to me at the above address.

Additional resources:

JONES/OERTH COUNTER: The Jones/Oerth counter is the newest model of the Jones counter.

Counters can be obtained from:

Paul Oerth

2455 Union Street- Apt 412

San Francisco, CA 94123

Phone: (415) 346-4165

Fax: (415) 346-0621

E-mail: Poerth@aol.com

Price: \$65 for the 5-digit model, \$75 for the 6-digit model, postpaid

In Conclusion:

As in past years, I will attempt to answer any questions you have about course measurement and certification and give you as much help as possible as you work through the process. The goal is simple- have as many races run on certified courses as possible. I will continue to work to turn around applications within a week wherever circumstances allow.

Please contact me with your questions and comments. Have a happy and prosperous 2002. I look forward to working with you in the coming year.

Sincerely,

Jay Wight
National Certifier USATF/RRTC

INSURANCE

Mike Wickiser to Sherry Quack, December 17, 2001

Sherry, A question has been posed to me regarding USATF insurance. If a USATF member were injured while measuring a road race course is there any coverage provided by or available through USATF? Ray Nelson, a New England certifier was recently hit by a car and the accident got a few people wondering. Ray will be OK and he is not involved in this query.

Thanks for any help you can provide.

Best,

Mike Wickiser

Sherry Quack to Mike Wickiser, December 17, 2001.

Dear Mike:

As long as he was certifying a road course for a USATF sanctioned event, then yes, he is covered by our insurance.

Does this help?!

Sherry Quack
Associations & Member Services Coordinator
USATF

From Jim Elias to Mike Wickiser & Sherry Quack, December 17, 2001

Mike, Sherry is correct. The basic guidelines for coverage under USATFD sport accident coverage:

- 1) The measurer is a registered USATF member at the time of accident.
- 2) The measurement is directly related to a USATF sanctioned event (normally, the accident must be within 30 days of the sanctioned event but I could see an exception as long as it is clear the work was part of a sanctioned event).
- 3) The measurer was operating within the normal scope of certification and was directed to measure the course by the race organizer. By normal scope, I would expect a claim from someone jogging the course (as a workout) after the measurement would not be covered.
- 4) The injured party receives treatment within 30 days.
- 5) The proper claim form is completed - the Association offices and USATF national office (Jim Elias or Andy Martin) have these forms.
- 6) In some states, a paid certifier may be construed as an independent contractor or employee and workers comp laws may apply.

Please note the insurance is secondary to all other coverages (normally health insurance obtained from an employer). There is a \$200 deductible and limits on certain PT and Chiro work.

Jim Elias
Chief Financial Officer
USA Track & Field, Inc.

International Association of Athletics Federations



TO: IAAF/AIMS Road Race Measurers

Monaco, December 2001

As you know, the IAAF/AIMS insure you for Personal Accident and Travel Insurance (including Medical Expenses) when you are travelling in order to measure an IAAF or AIMS race. You are insured for:

Personal Accident (Death [up to \$300,000], Disablement [up to \$300,000]

Medical & Emergency Expenses (Up to \$3 million)

Cancellation & Curtailment (up to \$5,250)

Delayed Departure (including Hi-jack)

Lost or damaged baggage (up to \$3,000 with a single item limit of \$1,000 and an Emergency Purchases Limit of \$450)

Loss of Money (\$2,500 in all but cash limit of \$1,000)

Personal Liability (up to \$3 million – including costs and expenses and legal expenses up to \$40,000).

We have pleasure in enclosing your insurance card, which gives you the telephone numbers to call if ever you require emergency services when you are abroad.

IAAF

This letter was sent to me by IAAF in connection with my function as IAAF/AIMS Measurement Administrator, Americas.

If you are about to measure a course for IAAF or AIMS, get in touch with me for further details.

Pete Riegel

USATF/RRTC CERTIFIED COURSE LIST
New Entries - January - February, 2002
Closing Date February 23, 2002

YEAR	DISTANCE	COURSE ID	ST	LOCATION	COURSE NAME/RACE	M/KM DROP	PCT SEP	MEASURER	REPLACES
2001	42.20 km	AK 01004 FW	A	Ketchikan	First Bank Marathon	0.0	0	W Harney	AK 99061 PR
2001	2.00 mi	AL 01027 JD	A	Prichard	Chickasabogue Park 2 Miler	0.5	3	L Mattics	AL 90011 JD
2002	5.00 mi	AL 02001 JD	A	Mobile	Red Cross Cross Town Five	0.0	1	L Mattics	
2002	1.00 mi	AL 02001 RH	A	Montgomery	Good News One Mile	0.0	9	B Harrison	
2002	5.00 km	AR 02001 DLP	A	Fayetteville	Komen Ozark Race for the Cure	0.0	1	D Potter	AR 00001 DLP
2001	21.10 km	AZ 01004 ETM	A	Tucson	Tucson 1/2 Marathon	11.8	84	T LaBlonde	AZ 99012 FC
2002	42.20 km	AZ 02001 ETM	A	Gold Canyon	Lost Dutchman's Marathon	4.3	48	T LaBlonde	
2001	5.00 km	CA 01060 RS	A	Los Angeles	Griffith Park 5km	0.0	2	R Scardera	
2001	10.00 km	CA 01072 RS	A	Los Angeles	Griffith Park 10km	0.0	1	R Scardera	CA 01059 RS
2001	5.00 km	CA 01073 RS	A	Santa Clarita	Santa Clarita 5 KM - 2001	0.0	8	R Smith	CA 99051 RS
2001	21.10 km	CA 01074 RS	A	Santa Clarita	Santa Clarita Half Marathon	6.5	71	R Smith	CA 99050 RS
2001	42.20 km	CA 01075 RS	A	Los Angeles	2002 Los Angeles Marathon	1.1	4	R Scardera	CA 97002 RS
2002	5.00 km	CA 02001 RS	A	Fountain Valley	Mile Square Park 5KM	0.0	2	R Scardera	
2002	42.20 km	CA 02002 RS	A	Huntington Beach	2002 Pacific Shoreline MAR	0.0	0	R Scardera	
2002	21.10 km	CA 02003 RS	A	Huntington Beach	2002 Pacific Shoreline 1/2MAR	0.0	1	R Scardera	
2002	5.00 km	CA 02004 RS	A	San Diego	San Diego 5km	0.0	0	G Rahill	
2002	42.20 km	CA 02005 RS	A	San Diego	San Diego Marathon	0.0	0	G Rahill	
2002	21.10 KM	CA 02006 RS	A	San Diego	San Diego Half Marathon	0.0	0	G Rahill	
2002	2.50 km	CA 02007 RS	A	Sacramento	Win's 2.5km Race Walk	0.0	0	D Scott	
2002	2.00 km	CA 02008 RS	A	Chula Vista	Marina Parkway 2k Loop	0.0	0	B Letson	
2002	5.00 km	CO 02001 DP	A	Lafayette	Lafayette Oatmeal Festival	0.2	5	B Durden	
2001	Cal	CT 01505 DR	A	Tolland	Shenipsit Lake Rd.#2 - 500m	30.5	100	R Moore	CT 01502 RD
2001	5.00 km	FL 01036 DL	A	Cocoa	Pumpkins in the Park 5k	0.0	1	B Dillard	
2001	15.00 km	FL 01043 DL	A	Tallahassee	Turkey Trot 15K - 2001	-0.7	1	B McGuire	
2001	42.20 km	FL 01044 DL	A	Tampa	HOPS - Tampa Bay Marathon	0.0	1	T Ward	
2001	21.10 km	FL 01045 DL	A	Tampa	HOPS - Tampa Bay 1/2 MAR	0.0	3	T Ward	
2001	10.00 km	FL 01046 DL	A	Tampa	Avon Running Tampa 10k	0.0	1	E McDowell	
2001	30.00 km	FL 01048 DL	A	Woodville	Gulf Winds Track Club 30k	0.0	0	B McGuire	
2001	5.00 km	FL 01049 DL	A	Hallandale Beach	Derby Day 5k Race	0.0	8	G Witkowski	
2001	21.10 km	FL 01050 DL	A	Boca Raton	PAL Half Marathon	0.0	1	G Witkowski	
2001	10.00 km	FL 01051 DL	A	Ft. Myers	Florida Gulf Coast University	0.1	34	T Murphy	
2002	42.20 km	GA 02001 WC	A	Pine Mountain	Hughston Sports Med Ctr. MAR	0.0	0	J Grosko	
2002	5.00 km	IA 02001 MF	A	Johnston	United We Run	0.0	2	M Franke	
2001	5.00 km	ID 01004 MR	A	Coeur d'Alene	Race For the Cure	0.0	2	A Michalson	
2001	5.00 km	IL 01105 JW	A	Chicago	Museum Campus 5k	0.0	0	L Bakker	IL 98031 JW
2001	5.00 km	IL 01107 JW	A	Chicago	Fox Trot 5k	0.0	3	C Hinde	
2001	5.00 km	IL 01109 JW	A	Morton Grove	Prairie View 5k Run/Walk	0.0	4	C Hinde	
2001	5.00 km	IL 01110 JW	A	Rockford	Jingle Bell Run	0.0	0	D Lindsey	
2001	10.00 mi	IL 01111 JW	A	Park Forest	Park Forest Scenic 10	0.0	1	C Hinde	IL 99066 JW
2001	21.10 km	IL 01112 JW	A	Cary	March Madness	0.0	0	C Hinde	IL 98076 JW
2001	5.00 km	IL 01114 JW	A	Northbrook	Lew Blond Memorial Run	0.0	2	C Hinde	IL 01001 JW
2001	8.00 km	IL 01115 JW	A	Chicago	Shamrock Shuffle	0.0	5	C Hinde	IL 01007 JW
2001	5.00 km	KS 01050 BG	A	Wichita	New Year's Day 5k	0.0	1	M Pope	
2001	25.00 km	KS 01051 BG	A	Manhattan	Arne Richards Memorial	0.0	0	D Fisher	
2001	2.00 mi	KS 01052 BG	A	Wichita	River Run 2001	0.0	9	C Enszt	
2002	5.00 km	KS 02001 BG	A	Ottawa	Iron Horse 5km Run	0.0	0	L Joline	
2001	42.20 km	KY 01072 PR	A	Louisville	Derby Festival Marathon	0.0	23	J Kaiser	
2001	4.00 mi	MA 01033 RN	A	Somerville	Gobble Gobble Gobble Race	0.0	5	S Vaitones	
2001	10.00 mi	MA 01034 RN	A	Andover	Larry Robinson Cancer Race	0.0	0	S Vaitones	
2002	Cal	MA 02001 RN	A	Devens	Auman St. 1199.9462 ft. Cal	0.0	100	J Gibson	
2002	5.00 mi	MA 02002 RN	A	Devens	Parker Classic 5 Mile	0.0	2	J Gibson	
2002	2.00 mi	MA 02003 RN	A	Devens	Parker Classic 2 Mile	0.0	3	J Gibson	

YEAR	DISTANCE	COURSE ID	ST	LOCATION	COURSE NAME/RACE	M/KM DROP	PCT SEP	MEASURER	REPLACES
2001	42.20 km	MD 01015 JS	A	Montgomery Co.	Marathon in the Parks	1.4	36	B Tresp	
2001	3.00 km	MD 01040 RT	A	Greenbelt	Greenbelt Lake 3k	0.0	0	R Thurston	
2001	5.00 km	MD 01041 RT	A	Greenbelt	Greenbelt Lake 5k	0.2	1	R Thurston	
2001	5.00 km	MN 01020 RR	A	Minneapolis	The Isles	-1.2	10	R Recker	
1999	5.00 km	MO 99028 BG	A	St. Louis	State Games of America	0.0	2	D Richardson	
1999	5.00 km	MO 99034 BG	A	Kansas City	Swope Park Challenge	0.0	2	L Joline	
2001	42.20 km	MO 01048 BG	A	Springfield	Springfield Marathon	0.0	0	D Hood	MO 00033 BG
2001	21.10 km	MO 01049 BG	A	Springfield	Springfield 1/2 Marathon	0.0	0	D Hood	MO 00034 BG
2002	5.00 km	MO 02002 BG	A	Kansas City	Kick Butts	1.8	2	L Joline	
2001	42.20 km	MS 01003 RH	A	Waveland	Mississippi Coast Marathon	0.0	0	L Vergunst	
2001	10.00 km	NC 01061 PH	A	Bald Head Island	Bald Head -Maritime Classic	-0.5	1	S Meserole	
2001	5.00 km	NC 01064 PH	A	Reidsville	Reidsville YMCA	0.0	2	N Wood	
2001	8.00 km	NC 01065 PH	A	Carrboro	Gallop and Gorge	0.0	0	D Forbis	
2001	Cal	NC 01066 PH	A	Raleigh	Ray Rd. 1000 ft. Calibration	0.0	100	N Wood	
2001	Cal	NC 01066 PH	A	Raleigh	Ray Rd. 2000 ft. Calibration	0.0	100	N Wood	
2001	21.10 km	NC 01067 PH	A	Raleigh	Raleigh Marathon	0.0	1	P Hronjak	NC 00047 PH
2001	42.20 km	NC 01067 PH	A	Raleigh	Raleigh Half Marathon	0.0	2	P Hronjak	NC 00047 PH
2001	5.00 km	NC 01068 PH	A	Raleigh	Raleigh Marathon 5k	-0.9	4	P Hronjak	NC 00064 PH
2001	8.00 km	NC 01069 PH	A	Raleigh	Raleigh Turkey Trot 8k	0.0	2	T Rhodes	
2002	5.00 km	NC 01070 PH	A	Cleveland	West Row YMCA Santa Run	0.0	1	T Rhodes	NC 00071 PH
2001	5.00 km	NC 01071 PH	A	Cary	Cary YMCA RITNY	-1.0	6	P Hronjak	NC 00070 PH
2002	10.00 km	NC 02001 PH	A	Cary	Cary Road Race 10k	0.3	4	P Hronjak	NC 99007 PH
2002	5.00 km	NC 02002 PH	A	Chapel Hill	Franklin 5k	0.9	17	P Hronjak	NC 94002 ACL
2001	21.10 km	NH 01015 WN	A	Alton	Big Lake Half Marathon	0.1	11	R Fitzpatrick	
2002	5.00 km	NJ 02001 GAN	A	Westfield	Tamaques Park 5km 2002	0.0	7	P Hess	
2002	7.00 mi	NJ 02002 GAN	A	Avalon	Tim Kerr 7 Mile Island Run	0.0	0	G Newman	
2001	42.20 km	NY 01001 DB	A	New York	NYC Marathon '01	0.1	59	D Brannen	NY 00001 DB
2001	5.00 km	NY 01052 AM	A	Amherst	Deamen Col. C. McDougald	0.0	2	J Grandits	
2001	5.00 km	NY 01054 AM	A	Niagara Falls	Jack O'Lantern 5k	0.0	0	J Felix	
2001	5.00 km	NY 01055 AM	A	Buffalo	Jingle Bell for Arthritis	0.0	5	J Grandits	NY 93045 AM
2001	5.00 km	NY 01056 AM	A	Malverne	Lourdes of Malverne 5k	0.0	2	E Melnik	
2001	8.00 km	NY 01057 AM	A	Bohemia	MacArthur Airport 8k	0.0	1	E Melnik	
2001	4.00 mi	NY 01058 AM	A	Binghamton	St. Patrick's Day 4 Miler	-0.1	4	V Kelley	
2002	5.00 km	OH 02001 PR	A	Columbus	Arnold 5k Pump & Run	0.0	3	P Riegel	OH 01001 PR
2002	42.20 km	OH 02002 PR	A	Columbus	Last Chance for Boston	0.0	0	J Glaze	
2002	5.00 km	OH 02003 PR	A	Columbus	Franklin University 5k Run/Walk	0.0	3	P Riegel	
2001	8.00 km	OK 01034 BB	A	Oklahoma City	Run For Your Life	0.0	0	K Hardwick	
2001	8.00 km	OK 01035 BB	A	Oklahoma City	OKC Lake Eight	0.1	2	J Smith	
2001	5.00 km	OK 01036 BB	A	Tulsa	Wish Lemons Run	0.0	0	G LaFayette	
2001	5.00 mi	OK 01037 BB	A	Edmond	Edmond Frigid 5	-0.4	1	G LaFayette	
2001	5.00 km	PA 01032 WB	A	Morrisville	Chemical Education 5k	0.0	3	L Baldasari	
2001	5.00 km	PA 01034 WB	A	Swarthmore	Swarthmore Rec. Assn. 5k	0.0	1	W Belleville	
2002	10.00 km	PA 02001 WB	A	Grove City	Hunter Farm 10km	0.0	0	M Courtney	
2001	42.20 km	SC 01036 BS	A	Kiawah Island	Kiawah Island Marathon	0.0	0	M Chodnicki	SC 00028 BS
2001	21.10 km	SC 01037 BS	A	Kiawah Island	Kiawah Island Half Marathon	0.0	0	M Chodnicki	SC 92032 BS
2001	5.00 km	SC 01037 BS	A	Kiawah Island	Kiawah Island 5k	0.0	0	M Chodnicki	SC 97027 BS
2001	10.00 km	SC 01039 BS	A	Lexington	Race Against Hunger	0.1	1	E Prytherch	SC 00023 BS
2002	8.00 km	SC 02001 BS	A	Fort Mill	New Pawprint 8k	0.0	0	E Guettler	
2002	10.00 km	SC 02002 BS	A	Greenville	Reedy River Run	0.0	4	D White	SC 96004 BS
2002	5.00 km	SC 02003 BS	A	Columbia	Strides for Strength 5k	0.0	1	E Prytherch	
2002	5.00 km	SC 02004 BS	A	Columbia	Stride for Health 5k	0.0	2	E Prytherch	
2002	10.00 mi	SC 02005 BS	A	Aiken	Aiken Triple Crown Road Race	0.0	0	K Dixon	SC 85003 WN
2001	21.10 km	TN 01033 RH	A	Nashville	Country Music Half Marathon	1.5	17	J Zeigler	
2001	10.00 km	TN 01034 RH	A	Strawberry Plains	Strawberry Plains 10k	0.0	0	A Morgan	
2001	42.20 km	TN 01035 RH	A	Townsend	Smoky Mountain Marathon	0.0	0	A Morgan	TN 99002 RH
2001	21.10 km	TN 01036 RH	A	Townsend	Smoky Mountain 1/2 Marathon	0.0	0	A Morgan	TN 99002 RH
2001	5.00 km	TX 01027 JF	A	Austin	Yellow Jacket Buzz for Life 5k	3.0	10	J Ferguson	
2001	10.00 km	TX 01029 JF	A	Austin	Applied Materials Human Race	0.0	0	J Ferguson	TX 01002 JF

YEAR	DISTANCE	COURSE ID	ST	LOCATION	COURSE NAME/RACE	M/KM DROP	PCT SEP	MEASURER	REPLACES
2001	12.00 mi	TX 01115 ETM	A	Austin	ARC Decker Challenge 12mi	0.0	0	C Thibert	
2001	10.00 km	TX 01116 ETM	A	Houston	Conoco Rodeo Run 2002	-0.5	9	E McBrayer	TX 00087 ETM
2001	5.00 km	TX 01117 ETM	A	Houston	Heart of the Park '02	0.0	8	E McBrayer	TX 01001 ETM
2001	5.00 km	TX 01118 ETM	A	Dallas	Jingle Bell Run	-0.2	6	D Canniff	TX 00095 ETM
2001	8.00 km	TX 01119 ETM	A	Plano	Plano Pacers 2001 -8k	0.4	3	K Ashby	
2001	5.00 km	TX 01120 ETM	A	Dallas	Dino Dash 5k	0.2	2	C Clines	TX 98005 ETM
2002	10.00 km	TX 02001 ETM	A	Laredo	Laredo 10K Classic	0.0	4	C Mericle	
2002	10.00 km	TX 02002 ETM	A	Dallas	CCCD Lawther Course 2002	-1.0	1	K Ashby	TX 98033 ETM
2002	5.00 km	TX 02002 ETM	A	Dallas	CCCD Lawther Course 2002	-2.0	2	K Ashby	TX 98033 ETM
2002	1.00 mi	TX 02002 ETM	A	Dallas	CCCD Lawther Course 2002	-6.3	6	K Ashby	TX 98033 ETM
2002	5.00 mi	TX 02003 ETM	A	Dallas	CCCD Lawther Course 2002	-1.2	1	K Ashby	TX 98033 ETM
2002	4.00 mi	TX 02003 ETM	A	Dallas	CCCD Lawther Course 2002	-1.6	2	K Ashby	TX 98033 ETM
2002	2.00 mi	TX 02003 ETM	A	Dallas	CCCD Lawther Course 2002	-3.1	3	K Ashby	TX 98033 ETM
2002	5.00 km	TX 02004 ETM	A	Dallas	MLK 5k	0.0	2	K Ashby	
2002	1.00 mil	TX 02004 ETM	A	Dallas	MLK 1 Mile	-0.6	8	K Ashby	
2002	5.00 km	TX 02006 ETM	A	Lubbock	Reese Center 5k	0.0	0	G Jury	
2002	10.00 km	TX 02007 ETM	A	Lubbock	Reese Center 10k	0.0	0	G Jury	
2002	21.10 km	TX 02008 ETM	A	Lubbock	Reese Center Half Marathon	0.0	0		
2001	10.00 km	VA 01025 RT	A	Virginia Beach	Turkey Trot 10km	0.0	0	J Price	
2001	10.00 km	VA 01039 RT	A	Ashburn	Ashburn Farm 10k	-0.4	2	R Thurston	VA 99032 RT
2001	5.00 km	WI 01106 JW	A	New Berlin	Orchard Romp 5k	0.0	1	K Gilgenbach	
2001	5.00 km	WI 01108 JW	A	West Allis	SMA-ATW 5k	0.0	0	M Proctor	
2001	10.00 km	WI 01113 JW	A	Menasha	Otto Grunski Runski	0.3	4	D Moore	
Foreign									
2001	10.00 km	PUR 01073 PR	A	Comerio	El Seco 10k	17.0	38	P Zapata	
2002	10.00 km	PUR 02004 PR	A	San Juan	World's Best 10k	0.0	1	P Zapata	
Renewed									
1991	10.00 mi	GA 91037 WN	A01	Dalton	Carpet Capitol 10 Miler	0.1	1	W Cornwell	GA 88030 WN
1986	Cal	KS 86016 BG	A01	Wichita	Amidon 1/2 mile Calibration	0.0	100	B Wooten	
1991	10.00 km	NC 91024 ACL	A02	Greensboro	Fun Forth-Old Greensborough	0.0	1	A Linnerud	
1991	5.00 km	NC 91080 ACL	A02	Raleigh	Run For The Roses	0.0	5	A Linnerud	
1990	5.00 km	NY 90009 AM	A02	Mendon	Nestle Crunch 5k Challenge	0.0	0	G Tillson	
1987	5.00 km	OK 87052 BB	A01	Chickasha	Red Cross Run 5 km	0.0	0	E Jackson	
1990	5.00 km	OK 90051 BB	A01	Tulsa	Holiday Classic	0.4	6	G LaFarlette	

Copies of these certificates available from:

(Send course name & ID number and \$2.00)

Each certificate includes a course map.

Karen Wickiser - Course Registrar
2939 Vincent Road
Silver Lake, OH 44224-2916
Phone 330-929-1605
FAX 509-351-5383
Mikewickiser@neo.rr.com

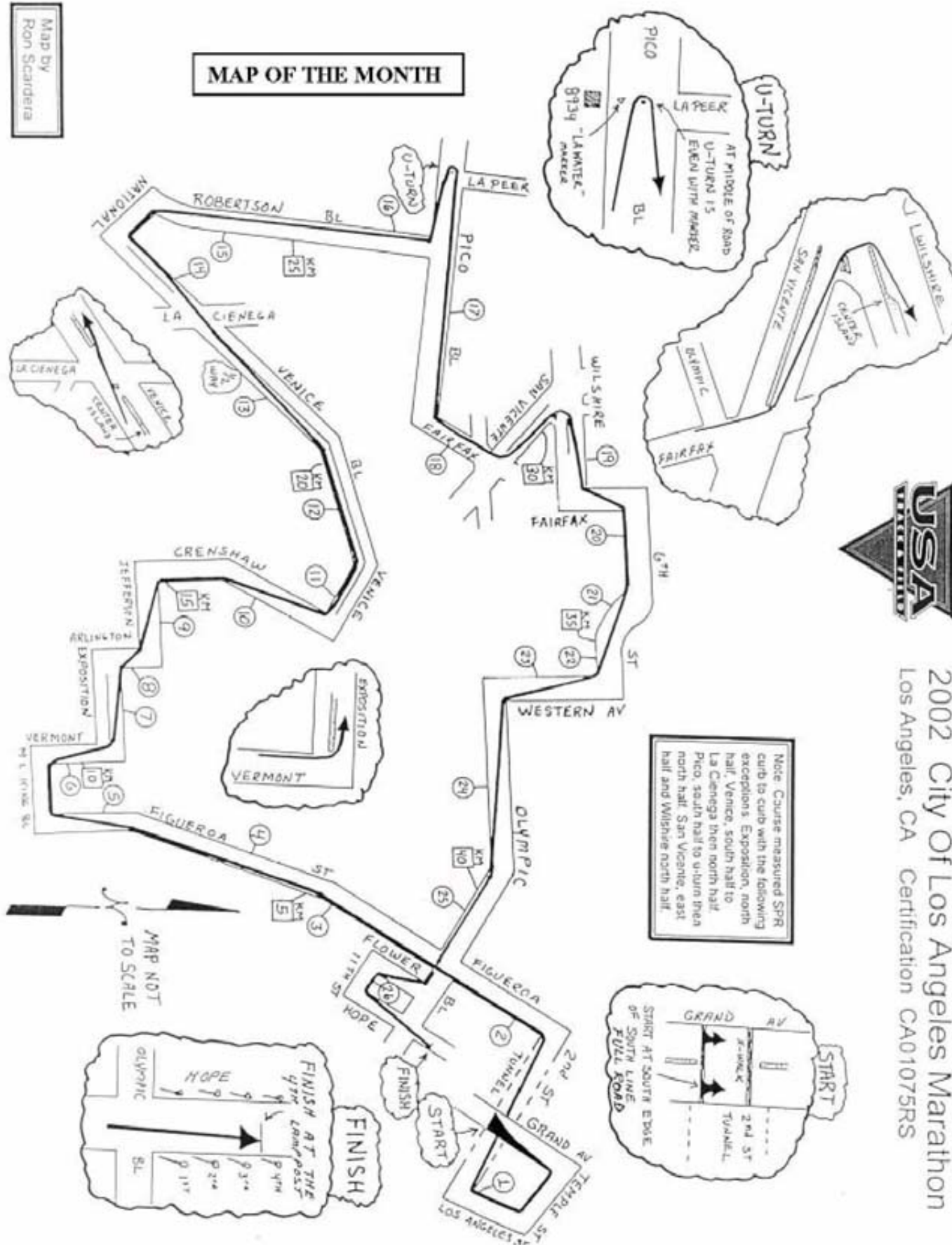
A complete listing of USATF Certified courses is available at - www.RRTC.Net



2002 City Of Los Angeles Marathon
Los Angeles, CA Certification CA01075RS



MAP OF THE MONTH



PUBLICATIONS AVAILABLE FROM RRTC

Printed Course Lists - You can obtain a list of certified courses for any state. Send \$2.00 for any state list. You will receive a list that is current as of the last published Measurement News. If you wish the courses to be sorted in a special way, let us know. Otherwise it will be sorted by distance as the list appears in MN. You can obtain other specially-sorted lists - for instance, you might want to have all the 5k's in IL, IN, and MO. It can be done. Just say what you want. If you are online, lists can be sent that way. Contact Mike Wickiser at MikeWickiser@neo.rr.com

Attention RRTC certifiers: Your lists are free. Any time you want one let us know. You can mark up any mistakes and we will correct it and send you a new copy.

Web Page Access to Course Lists: The complete list can be downloaded from the RRTC website at <http://rrtc.net/download/>. Also, try the certified course Search Engine at the USA-LDR website <http://www.usaldr.org/>

Individual Certificates - These may be obtained by sending the course number and \$2.00 per course desired. **SEND THE COMPLETE ID, INCLUDING PREFIX AND SUFFIX LETTERS, Thus: CA 92057 RS.** Send course name, length and location as well. If you are thinking of hiring a measurer, this is an excellent way to see the sort of work you can expect. In addition, you may wish to check out a course you intend to run. Bring the map to the course and see if the race director got it right!

Above material may be obtained from: Wickiser - 2939 Vincent Rd. - Silver Lake, OH 44224-2906

Measurement Calculation Computer Program by Bob Baumel, version 1.2 for Macintosh or IBM PC. This software can be downloaded for free from the RRTC website at <http://www.rrtc.net/download/> or Bob will distribute it by email attachment (send requests to webmaster@rrtc.net) or on floppy disks (send blank, formatted diskette and stamped return mailer to Bob at: 129 Warwick Road, Ponca City OK 74601-7424). Be sure to specify Mac or PC version.

Electronic Certificate Templates (available to Certifiers only), now in an Adobe Acrobat format which isn't tied to any word processor. Requires Acrobat or Acrobat Reader 4.0 or greater (Current Acrobat Reader may be downloaded for free from www.adobe.com). The template allows you to fill in certificates on the computer and print them. Available in both FS and non-FS version. Distributed by Bob Baumel by email or diskette [same addresses as for Measurement software]. Bob can customize the template with certifier's personal info at the bottom (name, address, phone, etc.) so you can avoid re-typing it every time (Be sure to specify exact ID text desired when requesting a template).

Online course measurement book, edited by Bob Baumel. It's a revision of the one you can buy from USATF, but the basic procedures have not changed. Available at: <http://www.rrtc.net>

Course Measurement Procedures - the Bible of course measurement. Complete instructions for measuring courses for USATF certification. The same procedures are now used for IAAF and AIMS courses. \$9.00 postpaid. Available from: USATF - Book Order Dept. - PO Box 120 Indianapolis, IN 46206

Course Measurement Video - a concise 17 minute introduction to course measurement, intended as a supplement to *Course Measurement Procedures*. See how it's done! Version 2 sells for \$10 but there are still a few copies of the original version available for

\$7.50. Send to: Tom McBrayer - 4021 Montrose - Houston, TX 77006-4956.

OTHER PUBLICATIONS AND EQUIPMENT

Road Race Management is a monthly newsletter providing race organizing ideas and news for race directors. \$97 per year from: Road Race Management - 4904 Glen Cove Pkwy - Bethesda, MD 20816 Phone: 301-320-6865 Fax: 301-320-9164

Jones/Oerth Counters - Write to: Paul Oerth - 2455 Union St - Apt 412 - San Francisco, CA 94123. Phone: 415-346-4165 Fax 415 346 0621. Email: Poerth@aol.com. US Price is \$65 for the 5 digit model, \$75 for the 6 digit model, postpaid. Foreign price is \$70/\$80 plus postage. Foreign orders shipped by airmail. Visa, MasterCard, American Express cards accepted. **Note: Payment in advance is required.**

NOTE: PRICES INCREASE BY \$5.00 ON APRIL 1, 2002.

RunScore - The flagship of IBM-style finish line programs. For information contact: Alan Jones - 3717 Wildwood Dr - Endwell, NY 13760. Or check it out on the internet at: www.runscore.com

Apple Raceberry JaM - Race management software for Macintosh and Windows. Check it out on the Internet at <http://www.raceberryjam.com> or call Jack Moran at (952) 920-0558.

TOPOGRAPHIC MAPS

USA topographic maps are available from:

U. S. Geological Survey 303-202-4200
USGS Map Sales
PO Box 25286, Bldg 810
Denver Federal Center
Denver, CO 80225

Delivery will be made in approximately 4 weeks. Ask for latest price.

Maps can be located and ordered online at: <http://www.usgs.gov>

Maps can be obtained in just a few days from:

Map Express - PO Box 280445 - Lakewood, CO 80228-0445

1-800-MAP-00EX (1-800-627-0039)

Maps can be located and ordered online at:
<http://www.mapexp.com>

Topo Maps on CD-ROM - 3-D TopoQuads includes authentic USGS 7.5-minute quadrangle maps, assembled into one seamless database

See an interactive online demo at <http://www.delorme.com>

Also - check out Street Atlas USA from the above - it's a seamless street map of the whole USA at a decent price.

USGS TOPOGRAPHIC MAPS ONLINE - FREE

Maps.Com has a section where you can click on to all USGS maps, free. This can be very handy for obtaining accurate elevation information.

Check out: <http://www.maps.com>



ROAD RUNNING TECHNICAL COUNCIL

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February 24, 2002