

NARRATIVE REPORT OF VALIDATION ACTIVITY  
500 FESTIVAL MINI-MARATHON (IN-99004-MW)  
INDIANAPOLIS, INDIANA

This validation measurement of the subject course took place on Sunday morning, 17 November 2002. Accompanying me on the measurement ride was Don Carr, who is retained by 500 Festival Associates to act as race director.

The course in question is a half-marathon (21097.5 meters) course which begins in a dual start on parallel east-west streets in downtown Indianapolis, proceeds north and west to the south entrance of the Indianapolis Motor Speedway, makes a lap around the Speedway, exits through another south gate back onto the city streets, and then returns mostly south and east to finish in the downtown area.

We began by setting a 300 meter calibration course on Pennsylvania Avenue between Washington Street and the Conseco Fieldhouse. The measurement of the calibration course was on dry pavement in temperatures near freezing, so eight centimeters was added to the nominal measurement as a temperature correction. The bicycle was calibrated on this course and the measurement began just before 8 AM.

Because the Washington Street start is considered to be the main start the course was measured first from it. The start was clearly marked on the street with paint and Don Carr verified that the point in question was indeed where the race started. The measurement proceeded along the Shortest Possible Route with little interference. Once we passed the point where the two starts converge I made a mark and took a reading so that the distance from that point back to the other start could be measured without remeasuring the entire course.

When the course turns right from 10<sup>th</sup> Street to Olin Avenue, the south end of Olin is divided by a curb-high barrier. I remained on the east side of it. Other than that, the course to this point was measured as if the runners had full access to the streets.

At Gate 3 of the Indianapolis Motor Speedway I encountered a cable barrier. I was able to lift the bicycle through it and move the cable such that I believe the front hub was able to occupy the same spot on both sides of the cable and thus no distance was lost. The course continues through a tunnel under the Speedway racing surface and then turns right onto an internal road where it heads northeast toward the back straightaway just north of Turn 2. At this point we encountered a gate and another cable barrier- this one designed to be stout enough to contain an out of control race car. We were able to pass the bicycle through the cables and over the gate, but approximately a meter was lost because the hub could not occupy the same location on both sides of the gate.

The course map is somewhat ambiguous as to what route the course follows once inside the Speedway. Based on Don's experience with the course I measured it as follows:  
From the gate between the infield and the track, I measured diagonally across an asphalt apron between the inside wall and the racing surface. At the north end of that apron, I measured along

the inside edge of the racing surface until, before Turn 3, the deceleration lane takes off to the inside of the racing surface in Turns 3 and 4. I followed this lane until, in Turn 4, a large asphalt apron appears between the deceleration lane and the inside wall. I then followed the shortest possible route across this apron then back across the deceleration lane to the north end of the wall separating the pit area from the front straightaway. I then measured along the inside of the racing surface, across the yard wide strip of bricks at the start/finish line, to the south end of the wall that separates the pit lane from the racing surface. At that point I followed the shortest possible route into the acceleration lane inside of Turn 1. In the short chute between Turns 1 and 2 there is access to the acceleration lane from the infield. I turned left, went through this gate, and then followed the shortest paved route to the west tunnel (Gate 2) under the Speedway racing surface back to 16<sup>th</sup> Street. I have attempted to depict this in attachment "A".

From the Speedway back to the downtown area the runners have use of the full width of all of the streets except for in the vicinity of a short area of White River Parkway West where they are restricted to the southbound lanes. The course was measured accordingly.

I found the finish also to be clearly marked with paint and in the correct location. After recording the counts at the finish I returned to the Maryland Street start. As in the case of the Washington Street start, the starting line was well-marked and Don Carr verified that its location was the one used during the race. I measured along the north edge of Maryland but when it became apparent that the street curved to the left around the Victory Field baseball stadium I performed an offset maneuver at a pavement seam and moved the bicycle to the left or south side of the street. From there I was able to measure the course along the SPR to the merge point described earlier. I recorded the counter reading and rode the bicycle back to the calibration course and recalibrated the bicycle.

The results of the measurement of the course from the Washington Street start are shown as attachment "B". From the Washington Street start, the course measured out at 21096.47 meters, or approximately 1.03 meters short of the advertised race distance. If you add the meter that was lost at the gate north of Turn 2 at the Speedway, this pulls the distance almost up to the advertised race distance. From the Maryland Street start (measurement data at attachment "C"), the course is 21107.75 meters or approximately 10 meters longer, so there is no question that from that starting line the course is longer than the advertised distance.

USATF's policy in circumstances like this is that if the validation measurement shows the course is at least 99.95 percent of the advertised race distance the measurement has not conclusively proven that the course is short and that any records set on the course should be ratified. However because the course was found to be marginally short it will be dropped from the certified course list, and because both starting lines are on the same certificate, both need to be adjusted. To be once again considered certified the course must be lengthened to the advertised distance plus a Short Course Prevention Factor of 0.01 percent. For a half-marathon, the distance in question is 21118.6 meters. When this is done, a new certificate will be issued and the course will be considered "pre-validated", which is to say that any further records set on the course would be ratified without a validation measurement.

Thus the course from the Washington Street start needs to be lengthened by 22 meters (72.18 feet) and the course from the Maryland Street start needs to be lengthened by 10.85 meters (35.59 feet). A revised course map showing the new locations of the start and finish points must be submitted to the appropriate USATF/RRTC certifier and a new Measurement Certificate will be issued.

Overall I felt that the measurement was fair to the course. I generally kept the front wheel of the bicycle between 20 and 30 centimeters from the curb or edge of pavement on all curves. Parked cars along the course were minimal and did not materially interfere with the SPR. I suspect that if I had had a second opportunity to measure the course I might have been able to follow a slightly more efficient line and thus might have come up with a measurement a meter or two shorter. That would not be material to the findings, however.

A copy of the original USATF Measurement Certificate is included as attachment "D".

Please direct any questions regarding the measurement or this report to my attention .

Respectfully submitted,

Jay W. Wight  
USATF/RRTC National Certifier  
IAAF "A" Measurer

## VALIDATION REPORT

Name of the Race: 500 Festival Mini Marathon Location: Indianapolis, Indiana

Date of Race: 1-May-99 Course ID #: IN-99004-MW

Advertised Race Distance 21097.5 meters

Describe how you determined the exact route used by the race in question?

Consultation with race director

Validation Measurement Data (if such measurement is required or necessary)

Calibration Course Set on site Length 300 meters

Is the calibration course a previously certified course? Yes No

If the answer to the above question is yes, please check the length of this course.

Please indicate the method used to check the length of this course and the results.

Set new 300 meter course on Pennsylvania Street in vicinity of starting lines

### 1. Pre-Measurement Calibration:

Time of Day 7:45 AM Temperature 31 F

Finish Count	Start Count	=	Difference
<u>77136</u> minus <u>74344</u>	<u>74344</u>	=	<u>2792</u>
<u>79927</u> minus <u>77136</u>	<u>77136</u>	=	<u>2791</u>
<u>82720</u> minus <u>79927</u>	<u>79927</u>	=	<u>2793</u>
<u>85512</u> minus <u>82720</u>	<u>82720</u>	=	<u>2792</u>

Average Pre-measurement Count 2792

**2. Course Measurement:** Note that a single ride, following the SPR as available to the competitors on race day, is required. You may wish to attach descriptions of deviations from the SPR, uncertainties in the exact route available for the race, or other sources of measurement variability. An analysis of sources of error and findings of concomitant non-validation measurements may also be appended to this report.

Time of Day at Start of Measurement: 7:55 AM Temperature: 32 F

Finish Count: 283329 (minus) Starting Count: 87000

Counts on Course: 196329 Time of Day at Finish of Measurement: 9:30 AM

**3. Post Measurement Calibration:**

Time of Day: 9:50 AM Temperature: 35 F

Finish Count	minus	Start Count	=	Difference
<u>57188</u>	minus	<u>54396</u>	=	<u>2792</u>
<u>59979</u>	minus	<u>57188</u>	=	<u>2791</u>
<u>62772</u>	minus	<u>59979</u>	=	<u>2793</u>
<u>65563</u>	minus	<u>62772</u>	=	<u>2791</u>
Average Post Measurement Count				<u>2791.75</u>

**4. Calculation of Course Length:**

a. Pre-Measurement Average Calibration Count	<u>2792</u>
b. Post-Measurement Average Calibration Count	<u>2791.75</u>
c. Average Count [ ( a+b ) / 2 ]	<u>2791.875</u>
d. Length of Calibration Course	<u>300</u>
e. Validation Constant (c/d)	<u>9.30625</u>
f. Counts on Course (from #2)	<u>196329</u>
g. Calculated Course Length ( f/e )	<u>21096.46743</u>
h. Advertised Course Length	<u>21097.5</u>
i. Percent Difference [ 100(g-h) / h ]	<u>-0.004894287</u>

I. The undersigned, hereby attest that the foregoing report is a fair and unbiased examination of the length of the race or races on the race or races conducted on the road course in question. All numerical information reported herein was gathered or directly witnessed by me and is a true statement of my findings.

\_\_\_\_\_  
(signed)

Date of Validation: ##### Social Security # 330-54-8131

Name & Address of Validator: Jay Wight

4556 Opal Drive

Phone Number 847-359-4598 Hoffman Estates, IL 60195-1185

Please attach: Copy of Course Certificate including Map of the Course; Narrative Report of Validation