

APPLICATION FOR CERTIFICATION OF A ROAD COURSE  
The Calibrated Bicycle Method

- Name this Course will be Known By MACOM LABOR DAY 10K
- Advertised Race Distance 10K Race Date 09/03/2001
- Location of Start MACOM GA Finish (if different) \_\_\_\_\_  
city, state city, state
- Person in Charge of Measurement: 369 RIVERDALE RD  
BILL CAUSEY MACOM GA 31204 ( 478 ) 477-4416  
(name) (address) (zip) (telephone)
- Race Director (if course is measured for a specific race): 4718 GUERRY DR  
STEVE CORKERY MACOM GA 31210 ( 478 ) 477-4571  
(name) (address) (zip) (telephone)
- Should this course replace a previously-certified course? If so, give name/number of course to be replaced. YES - MACOM LABOR DAY ROAD RACE 10K (GA88017WN)

CALIBRATION OF BICYCLE

- Did you calibrate the bicycle on a calibration course previously certified by the Road Running Technical Council? YES (YES or NO)  
If YES, enclose a copy of the certificate and map verifying RRTC certification of the calibration course.  
If NO, you must enclose an Application for Certification of Calibration Course.
- Is your **bicycle calibration data sheet** attached? YES (YES or NO)
- Did you include the factor of 1.001 in your calibration constant? YES (YES or NO)

SUMMARY OF MEASUREMENTS

- Date(s) of measurements 06/24/2001 & 07/08/2001
- How many measurements of the course were made? 2
- Name(s) of measurer(s) BILL CAUSEY, EARL TYLER
- Exact length of course 10K / 6.2137119 MI.
- Difference between longest and shortest measurements .0030398 MI. (16.05')
- Which measurement was used to establish the final race course and WHY? THE 1ST MEASUREMENT WAS USED SINCE IT WAS THE LESSER OF THE 2 LENGTHS.
- Is your **course measurement data sheet** attached? YES (YES or NO)

COURSE LAYOUT AND MARKING

- Is your **course map** attached? YES (YES or NO)

NOTE: The course map need not be to scale but must indicate direction of north. It must be black & white and fit on 8.5x11 paper. Descriptions of the **exact** positions of the **start**, **finish**, and all **turn-arounds** relative to permanent landmarks must be included on the map. Details of any restricted portions where cones and monitors are required must be detailed. Include a line representing the actual measured path.

- List all intermediate **splits** (attach list describing the position of each relative to permanent landmarks.

- How far from the curb (edge of pavement) did you measure on curves? AS CLOSE AS POSSIBLE, APPROX. 6 INCHES
- If your course contains pairs of opposite turns (right-to-left or left-to-right) did you follow the shortest diagonal path? YES (YES or NO)

Be sure your map shows the exact measured path.

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**The Calibrated Bicycle Method (continued)**

21. Does your course contain any turn-around (double-back) points? NO (YES or NO)  
 If YES, show them on course map, located exactly.
22. Does your course include any winding or "S" curved sections? YES (YES or NO)  
 If YES, be sure your map makes it clear how you measured.
23. Did you measure an **unrestricted** route? Do the runners have use of the entire road, from curb to curb? YES (YES or NO)  
 If your course requires cones or barriers to keep runners on the proper route, be sure your map shows their exact locations, just as you would locate the start and finish.

24. Type of courses (check one):
- |   |                                  |  |                                  |
|---|----------------------------------|--|----------------------------------|
| <input type="checkbox"/> one loop                   | <input type="checkbox"/> time(s) | <input type="checkbox"/> same out/back             | <input type="checkbox"/> time(s) |
| <input type="checkbox"/> figure-8                   | <input type="checkbox"/> time(s) | <input type="checkbox"/> several out/back sections |                                  |
| <input type="checkbox"/> partial loop               |                                  | <input type="checkbox"/> keyhole (out/loop/back)   |                                  |
| <input type="checkbox"/> complex of different loops |                                  | <input checked="" type="checkbox"/> point-to-point |                                  |

25. Straight-Line Distance (as the crow flies) between Start and Finish 5.27 MI.

26. Altitude of Race Course above mean sea level (meters or feet – please specify which!):  
 start 475' finish 300' highest 570' lowest 300'

27. Type of surface (give percentages):
- |   |   |
|---|---|
| <u>100%</u> curbed streets                            | <input type="checkbox"/> graded dirt road           |
| <input type="checkbox"/> uncurbed streets/roads       | <input type="checkbox"/> ungraded dirt road         |
| <input type="checkbox"/> concrete sidewalk            | <input type="checkbox"/> gravel road                |
| <input type="checkbox"/> concrete/brick streets/roads | <input type="checkbox"/> undefined paved surface    |
| <input type="checkbox"/> paved bike path              | <input type="checkbox"/> undefined dirt surface     |
| <input type="checkbox"/> unpaved bike path            | <input type="checkbox"/> undefined grass surface    |
| <input type="checkbox"/> trail (single file)          | <input type="checkbox"/> track (curbed or uncurbed) |

If your course includes any unpaved sections, please attach a detail of the method(s) used to measure such sections.

28. Have you included your start, finish and turn-around (if applicable) diagrams on your map? YES (YES or NO)
29. How did you mark the start and finish points (and turn-around points)?  
NAIL & WASHER IN PAVEMENT 12" FROM CURB & PAINT
30. Did the same person ride the bicycle on both the calibration course and the race course for any given measurement? YES (YES or NO)
31. Describe weather conditions during the calibration and measurement rides:  
COOL & SUNNY 1<sup>ST</sup> RIDE. WARM & SUNNY 2<sup>ND</sup> RIDE
32. Did you perform both the pre-measurement and post-measurement calibrations and the measurement of the race course on the same day? YES (YES or NO)

# COURSE MEASUREMENT DATA SHEET

Name of Course or Race Name MACON LABOR DAY 10K

Name of Measurer for ride #1 EARL TYLER Working Constant #1 18546 COUNTS/MILE

Date 06/24/01 Start: Time 7:20 AM Temperature 61° F

Finish: Time 8:35 AM Temperature 70° F

Name of Measurer for ride #2 BILL CAUSEY Working Constant #2 18162 COUNTS/MILE

Date 07/08/01 Start: Time 7:30 PM Temperature 88° F

Finish: Time 8:15 PM Temperature 85° F

**Measurement Data.** Use the first measurement ride to lay out the start/finish points and all intermediate split points. Use the second ride to record counts at those **same** points. **Do not lay out a second set of marks!**

Measured Point	Counts for Measurement #1 Recorded Interval	Counts for Measurement #2 Recorded Interval
<b>START</b>	610000 > 18546	933620 > 18161
1 MI.	628546 > 18546	951781 > 18178
2 MI.	647092 > 18546	969959 > 18188
3 MI.	665638 > 18546	988147 > 18174
4 MI.	684184 > 18546	006321 > 18183
5 MI.	702730 > 18546	024504 > 18188
6 MI.	721276 > 3964	042692 > 3862
<b>FINISH</b>	725240 >	046554 >

Preliminary Course Length	start-to-finish counts	divide by	working constant	=	measured length
Measurement #1	<u>115240</u>	1	<u>18546</u>	=	<u>6.2137388 MI.</u>
Measurement #2	<u>112934</u>	1	<u>18162</u>	=	<u>6.2181477 MI.</u>
Difference between lengths #1 and #2	divide by	length #1	=	Measurement comparison (less than 0.008?)	
<u>.004089 MI.</u>	1	<u>6.2137388 MI.</u>	=	<u>.0007095</u>	( <u>YES</u> ) [yes or no]

**IMPORTANT.** Before you leave the course, compare the two measurements. They should agree to within 0.08%. If the two preliminary measurements do not agree to within 0.08%, something is wrong. Fix it! Then go to the calibration course and recalibrate.

If either of the **Constants for the Day** (for measurement #1 or #2) is **not** the same as the **Working Constant** for that measurement, recalculate the length of the course here:

Final Course Length	start-to-finish counts	divide by	constant for day	=	length of course
Measurement #1		1		=	
Measurement #2	<u>112934</u>	1	<u>18166</u>	=	<u>6.2167786 MI.</u>

The length of the race course is the lesser of the two lengths calculated above.

Measured course length 6.2137388 MI. . Desired course length 6.2137119 MI.  
 Use a steel tape to add or subtract distance as required to bring the **minimum** length to the same value as the desired course length.

How much did you add or subtract, and where (start, finish, turn-around point)?  
NO ADJUSTMENT MADE (CHANGE WOULD BE -1.7 INCHES)

**Note:** you need not adjust intermediate split points unless certification is desired for those points as well. Did you adjust the intermediate points and, if so, how?  
INTERMEDIATE POINTS NOT ADJUSTED