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## COURSE MEASUREMENT REPORT: Podgorica Halfmarathon 2015

I measured the whole course of the „Podgorica Halfmarathon“ from the start to the finish. I was accompanied by Milena Vuksanovic and Kire Sinadinovski with the bike and by the organisers (two cars).

### Course measurement data sheet

**NAME OF COURSE:** Podgorica Halfmarathon 2015

**DATE OF THE EVENT:** 25. 10. 2015

**ADVERTISED RACE DISTANCE:** 21097,5 m

**LOCATION OF START:** Danilovgrad; in front of Trg 9. Decembre Nr. 11

**LOCATION OF FINISH (IF DIFFERENT):** Trg Repubike in front of Elmag shopping centre (Podgorica)

**ELEVATION CHANGE ( +/- ) start & finish:** 0,66 m/km (14m)

**SEPERATION** between start & finish as a % of the race distance: 85% (18 km)

**RACE DIRECTOR (IF COURSE IS MEASURED FOR SPECIFIC EVENT)**

NAME: Milan Madžgalj (maraton@t-com.me)  
ADRESS: 19. Decembra no 21 81000, Podgorica

**TYPE OF TERRAIN;**                      FLAT                      ROLLING                      HILLY

**ALTITUDE:** START: 60 m HIGHEST: 60 m LOWEST: 44 m FINISH: 44 m

**TYPE OF COURSE:**    ~~OUT-&BACK~~    POINT TO POINT    ~~LOOP-COURSE~~

The course does not conform to the IAAF separation rule (rule 240)

## DETAIL OF CALIBRATION COURSE

**NAME OF EVENT:** Podgorica Halfmarathon 2015

**NAME OF CALIBRATION COURSE:** street without name in front of VOLI Centre near the airport

**LENGTH OF CALIBRATION COURSE:** 400m

**CITY:** Podgorica

**DATE MEASURED:** 09.09.2015

**METHOD USED TO MEASURE CALIBRATION COURSE:** steel tape

**HOW ARE START AND FINISH POINTS MARKED:** by nails

**MEASURING TEAM LEADER:**

Rainer Soos  
Kanzelweg 8  
9220 Velden am Wörthersee  
Austria

## BICYCLE CALIBRATION DATA SHEET

**DATE OF MEASUREMENT:** 10.09.2015

**LENGTH OF CALIBRATION COURSE:** 400m

**PRE - MEASUREMENT:**

RIDE	START COUNT	FINISH COUNT	DIFFERENCE
1	222000	226562	4562
2	226562	231123	4561
3	231123	235685	4562
4	235685	240246	4561

time of day: 07:00 am

temperature: 14°C

**PRE-MEASUREMENT AVERAGE COUNT:**

$$\begin{array}{rclcl}
 18246 & : & 4 & = & 4561,5 & = & 11403,75 / \text{km} \\
 11403,75 & \times & 1,001 & = & 11415,15375 & & \text{WORKING CONSTANT}
 \end{array}$$

**POST - MEASUREMENT:**

RIDE	START COUNT	FINISH COUNT	DIFFERENCE
1	498100	502660	4560
2	502660	507219	4559
3	507219	511779	4560
4	511779	516338	4559

time of day: 10:30 pm

temperature: 16°C

**POST-MEASUREMENT AVERAGE COUNT:**

$$\begin{array}{rclcl}
 18238 & : & 4 & = & 4559,5 & = & 11398,75 / \text{km} \\
 11398,75 & \times & 1,001 & = & 11410,14875 & & \text{FINISHING CONSTANT}
 \end{array}$$

**CONSTANT OF THE DAY: 11412,65125 per km**

average of both Working Constant and Finishing Constant = Constant of the Day

# COURSE MEASUREMENT DATA SHEET

DATE OF MEASUREMENT: 10.09.2015

**CONSTANT OF THE DAY: 11412,65125 per km**

START TIME: 08:00 am

TEMPERATURE: 15 °C

FINISH TIME: 09:30 am

TEMPERATURE: 16 °C

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## Measurement 1:

Start at Danilovgrad → finish at Podgorica

START COUNT: 240756

FINISH: 485646

DIFFERENCE: 244890 → 21457,78m

The halfmarathon will be too long: 360,27m.

We will find a new way at the start in Danilovgrad.

## Measurement 2:

Old start 2014 (=finish2009) → streets in Danilovgrad → P1 at Njegoseva

START COUNT 2: 517000

FINISH 2: 523785

DIFFERENCE: 6785 → 594,52m

$21457,78\text{m} - 594,52\text{m} = 20863,26\text{m}$

We need to the new start: 234,24m (2673 counts)

## Measurement 3:

Njegoseva (P1) in Danilovgrad → new start (new way)

START COUNT 3: 529000

FINISH 3: 531673

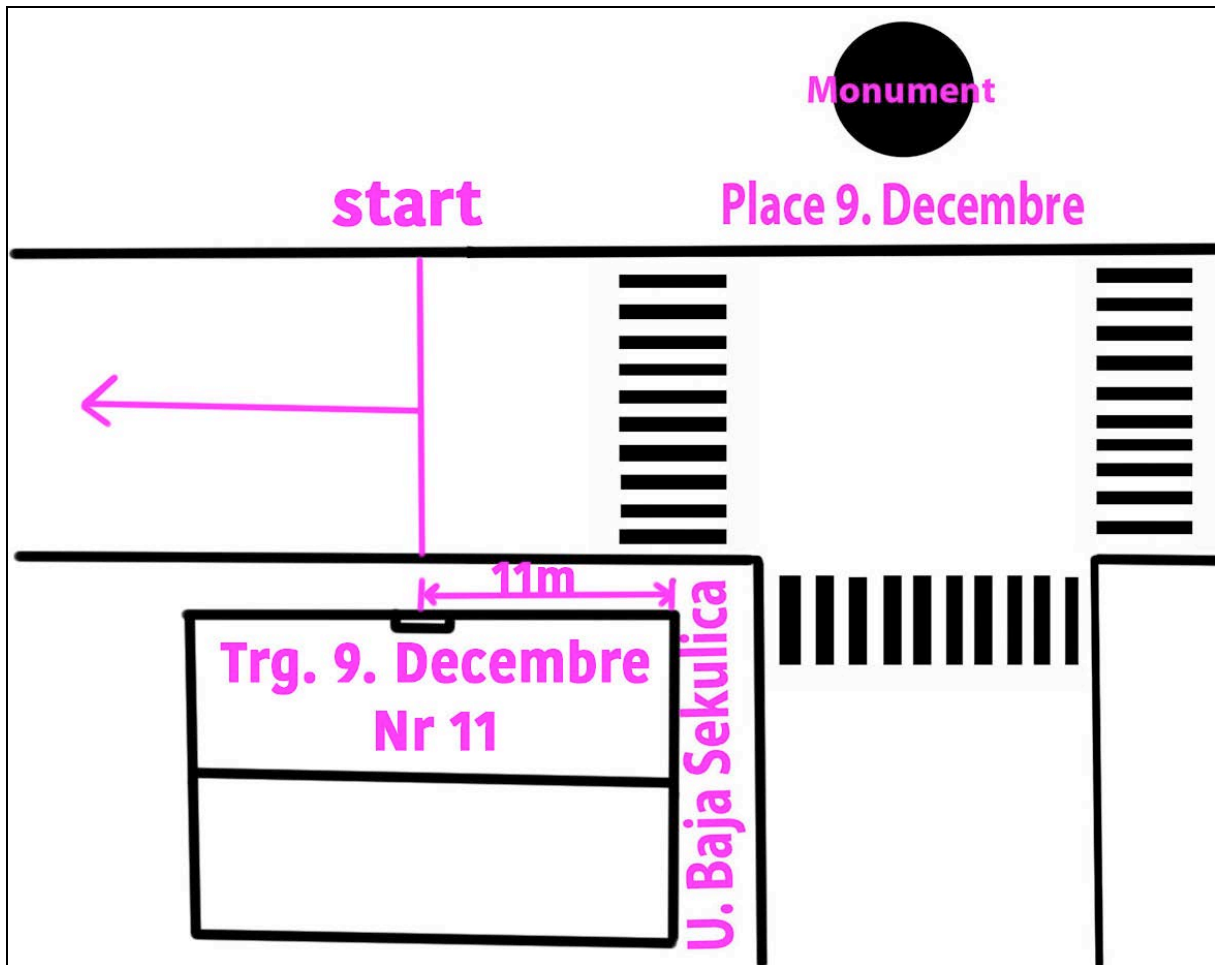
DIFFERENCE: 2673 → 234,21m

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## Description of the course

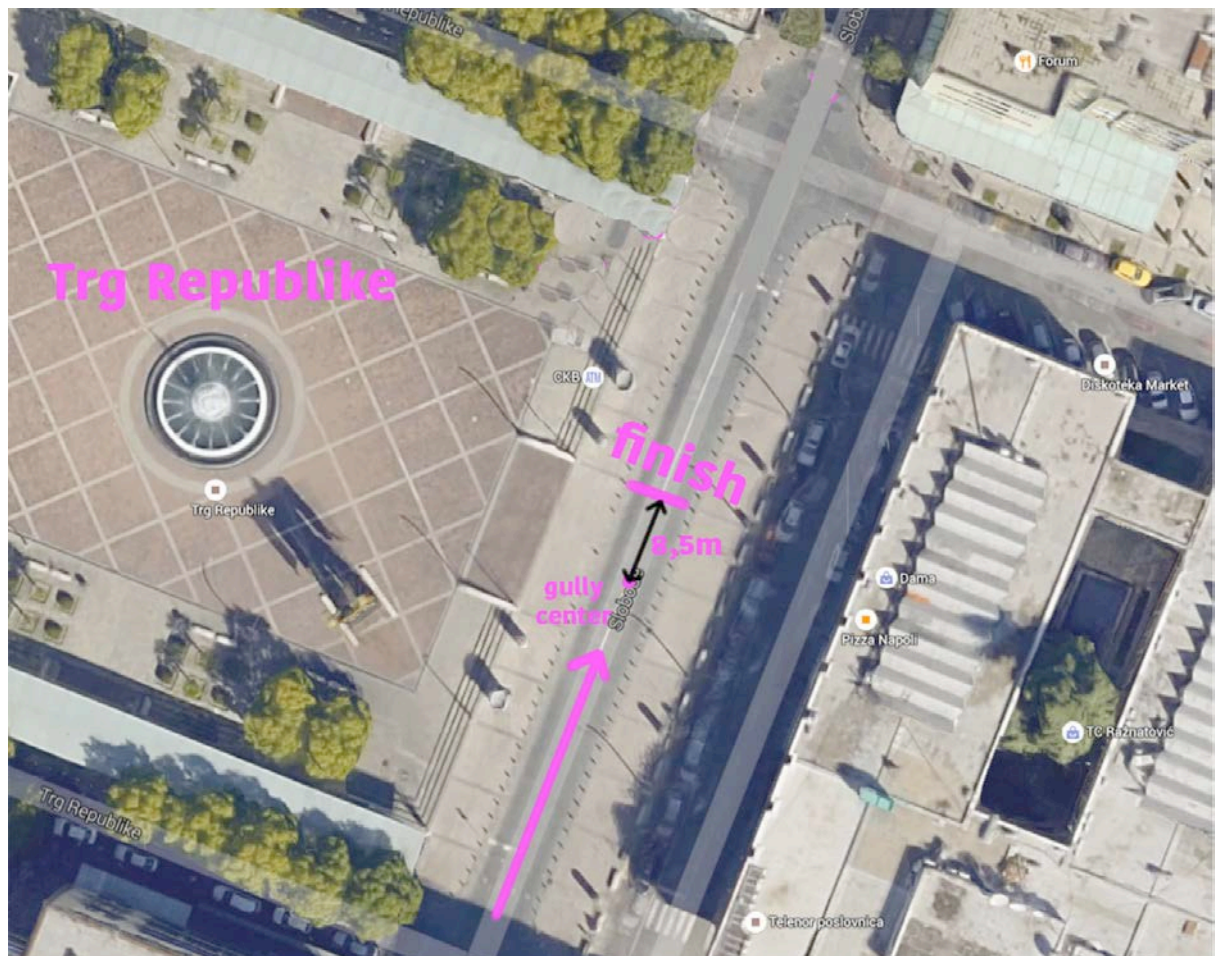
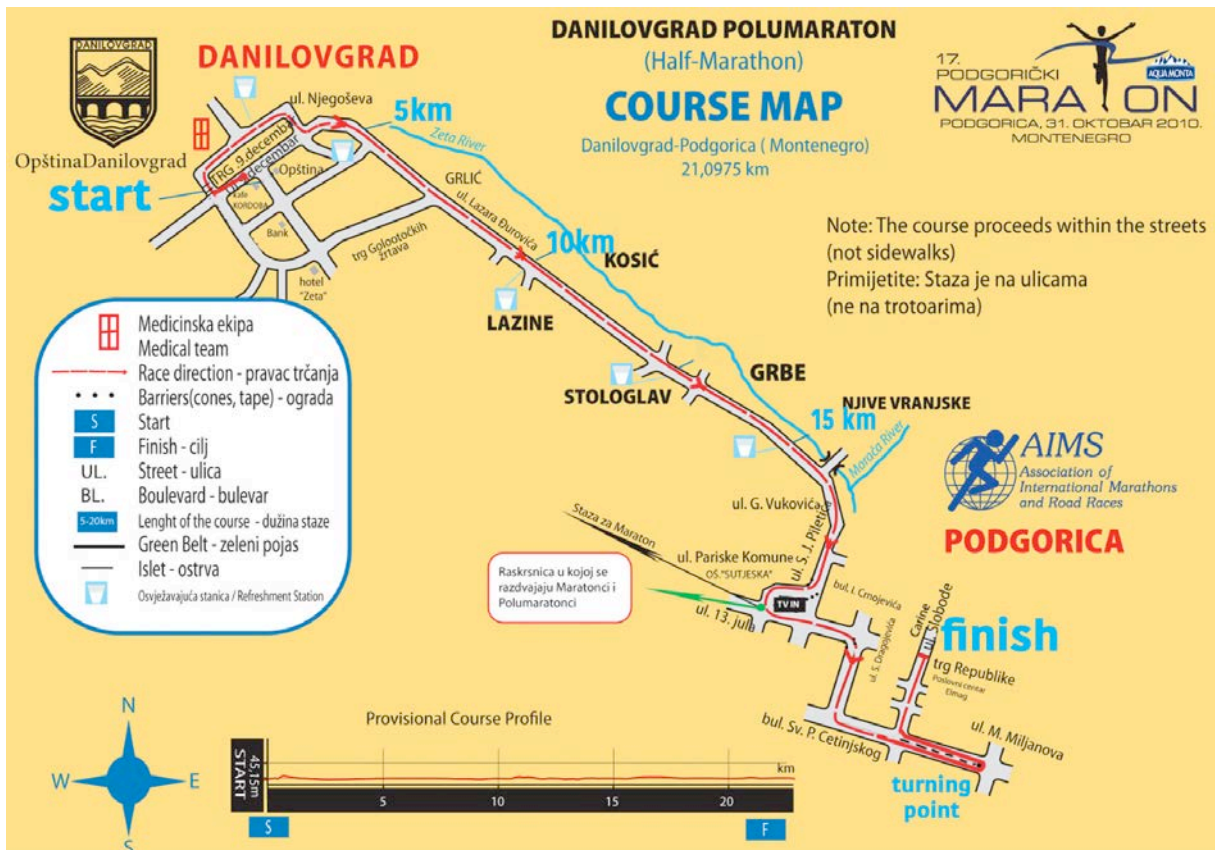
Start: in front of Trg 9. Decembre Nr. 11 at Danilovgrad



Danilovgrad → U. Njegoseva → Lazara Durovica → Grlic → Lazine → Stologlav → Grbe  
→ Njeve Vranicke → U. S.J.Piletica → U. 13. Julia → Millenium Bridge → U. S.Dragojevica  
→ bul. Sv.P.Cetinjskog → U. Slobode turning point at U.M.Miljanova → Bul.Sv.Cetinjskog  
→ U.Slobode →  
finish at Trg (Place) Republike (in front of Elmag shopping centre)



turning point



provisional

# IAAF

## ROAD RACE COURSE MEASUREMENT CERTIFICATE

Name of Race:	<b>Podgorica Halfmarathon 2015</b>		
Location:	<b>Podgorica</b>	Country:	<b>Montenegro</b>
Date of Race:	<b>25.10.2015</b>	Distance of Race:	<b>21097,5 m</b>
Measured Distance of Course:	<b>21097,5 m</b>	Date Measured:	<b>10.09.2015</b>
Altitude (in metres above sea level)			
Start: <b>60m</b>	Highest: <b>60m</b>	Lowest: <b>44m</b>	Finish: <b>44m</b>
Type of Course:	<b>Point to point</b>		
Local Race Measurer:	<b>Milan Madžgalj (maraton@t-com.me)</b>		
Adress:	<b>19. Decembra 21, 81000 Podgorica, Montenegro</b>		
Method of Measuring:	<b>Bicycle</b>	<b>Steel tape</b>	
IAAF Approved Course Measurer:	<b>Mag. Rainer Soos (aims.austria@gmail.com)</b>		
Adress:	<b>Kanzelweg 8 9220 Velden am Wörthersee Austria</b>		

This is to certify that the course described above and defined by the attached map has been measured and approved for certification. The course measurement complies with IAAF Rules for Road Race Course Measurement and the measured distance is not less than the official distance for the event. It remains valid for five years. Any modification of the course, however minimal, will require a new official measurement.

The course does not conform to the IAAF separation rule (rule 240)



Signature  
IAAF Approved Course Measurer

10.09.2015  
Date