

Norwegian Athletic Federation

Ullevaal stadion
Sognsveien 75 J, 0840 Oslo, NORWAY
E-mail: friidrett@friidrett.no
Phone: +47 94 83 33 26



COURSE MEASUREMENT REPORT

- REPORT FOR INTERNATIONAL CERTIFIED COURSE -

INFORMATION ABOUT EVENT AND COURSE
Event: Mandal 10k Christmas run
Technical Organiser: MHI Friidrett
City/Place: Mandal, Norway
Date of Arrangement: 27 December 2025
Date and time for measurement: 25 November 2025
Measured distance(s): 3 km + 10 km – This report is for 10 km
Length of calibration course: 300 m
Terrain: Flat <input type="checkbox"/> Slightly hilly <input checked="" type="checkbox"/> Hilly <input type="checkbox"/> Terrain <input type="checkbox"/>
Type of course route: Closed loop <input type="checkbox"/> Back and forth <input checked="" type="checkbox"/> A to B <input type="checkbox"/> Other <input type="checkbox"/>
Race surface: Asphalt
Elevation Start - Finish: 0 m
Description of start: Mandal – Sjøsandén / Mandalshallen
Description of finish: Same as start
Distance, in a straight line, between start & finish: 0 m
Start and Finish marked: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Km-markings: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Measurement direction: Running direction <input checked="" type="checkbox"/> Opposite running direction <input type="checkbox"/>
National record can be approved: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

CONTACT INFORMATION		
	Measured by:	Organizer:
Contact person:	Erling Hiorth	Anders Post Bentsen
Phone:	+47 91337338	+47 91333260
Email:	Erling.hiorth@gmail.com	anderspostbentsen@gmail.com

It is hereby confirmed that the course has been measured by an A- or B certified international certified course measurer from Norwegian Athletics. The course is measured in accordance with AIMS and Norwegian athletics regulations, and the distance(s) has the minimum reported length(s). The survey is valid for 5 years, except if the route is changed.

26 Nov 2025 *Erling Hiorth*

Date Signature by Course measurer Date Signature by AIMS

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CALIBRATION COURSE AND PROCEDURE – 25.Nov.2025 – 00:30 pm	
Length of measuring tape (steel measuring tape only)	50 m
Length of calibration course 1st measurement	300,50 m
Length of calibration course 2nd measurement	300,49 m
Possible 3rd measure (max. 1 cm diff per 100m 1 st and 2 nd)	No
Average of measurements before adjustments	300,495 m
Temperature (road or measuring tape)	4 degree
Adjustment cf. $D-(D*(1+(temp-20)*0,0000115))$	- 0,055 m temp
Measured calibration distance after adjustment	300,44 m (no adj, on ground)
Distance from start/finish to calibration distance	300 m

CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300m and 3 count of 400m)						
	Pre-measurement:			Post measurement:		
	Date and Time: 25 Nov – 01:10 pm			Date and Time: 25 Nov –03:45 pm		
	Start	End	Diff.	Start	End	Diff.
1st measure	573800	577165	3365	706300	709665	3365
2nd measure	577165	580529	3364	709665	713029	3364
3rd measure	580529	583894	3365	713029	716393	3364
4th measure	583894	587259	3365	716393	719758	3365

	Pre measurement	Post measurement	
Average (1+2+3+4) / 4	3364,75	3364,5	Today's constant. Either highest or average of before and after measurement
Constant 1 km	11199,418	11198,586	
Addn. +1‰	11,199	11,199	
Measurement constant (rounded)	11210,617	11209,785	11211

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MEASUREMENT PROCEDURE		
Measurement constant	11211	
Measured Distance	Counter	Description of place
	592 300	Start
1 501,56	609 134	Turning point @ 1,5 km
3 501,92	648 394	Turning point @ 5 km
3 502,45	687 660	Passed turning point @ 1,5 km
1 500,67	704 484	Finish
10 006,6 m		Total measured without adjustments
0 m		Total measured adjustments
10 006,6 m		Total measured course



CONCLUSION OF MEASUREMENT

1. General information about race course and start/finish
 - Start and finish close to Sjøsandén / Mandalshallen – on cycle path
 - Consist of 1 round; back and forth to turning point at 5 km
 - 3 km and 10 km race do share same course, where 3 km race turn after 1,5 km
2. Measurement of calibration course
 - 300 m in straight line from start/finish, straight/flat cycle path on asphalt
 - Measured in accordance with procedure, 2 persons
 - Marked at both ends, adjusted for temperature, no adjustment on ground
3. Calibration of bicycle
 - Calibrated in accordance with procedure, 4 measures, deviation 1 count
4. Measurement of the course
 - From start to intermediate point 1 (turning point 3 km race), noted counter
 - From point 1 to point 2 (turning point 10 km race), noted counter
 - From point 2 back to point 1, noted counter
 - Back to start = finish line
5. Post calibration of bicycle
 - Same procedure, 4 measures, deviation 1 count
6. Course adjustments
 - None
7. Overall length of the course
 - The course is not shorter than 10 km
8. Additional info
 - The course is on walking- cycle path most of the way. There is one road crossing from one side to the other.

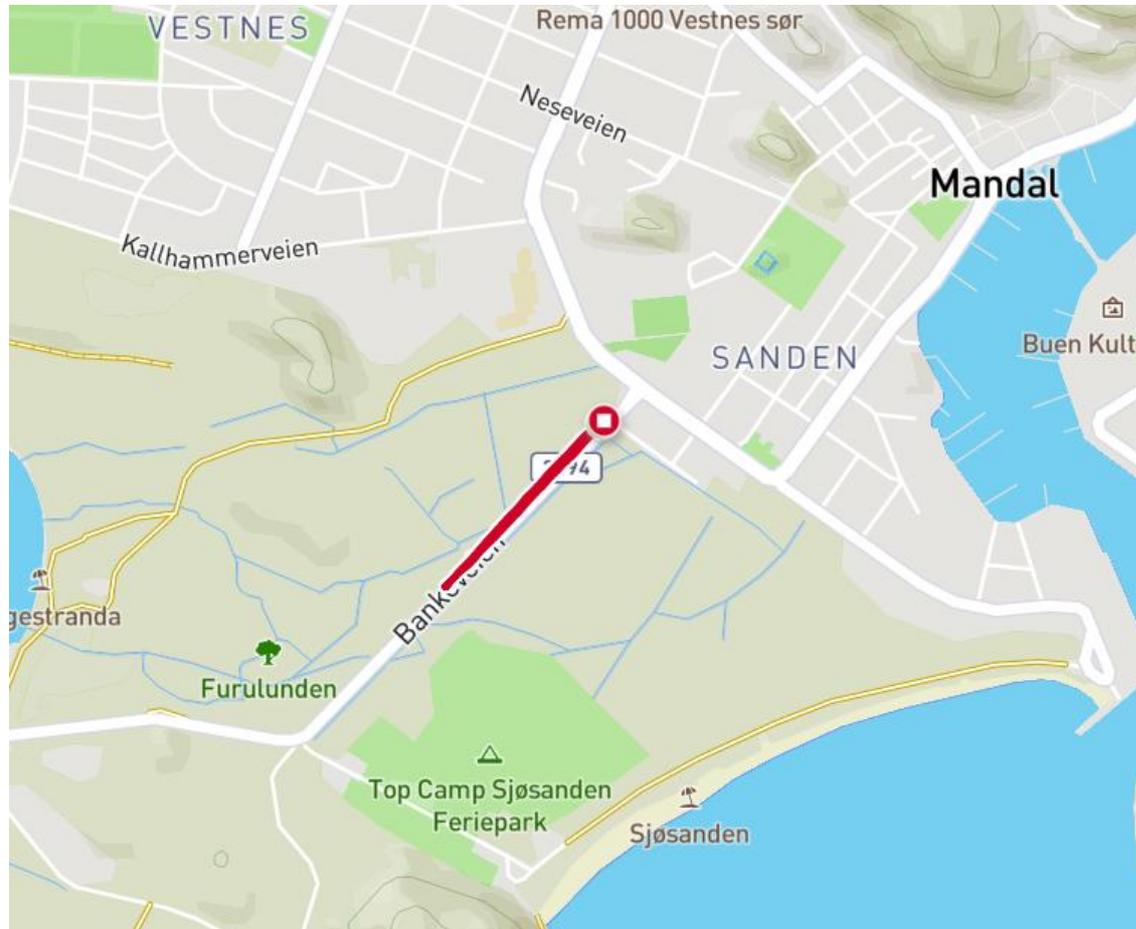
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CALIBRATION COURSE MAP

Calibration course

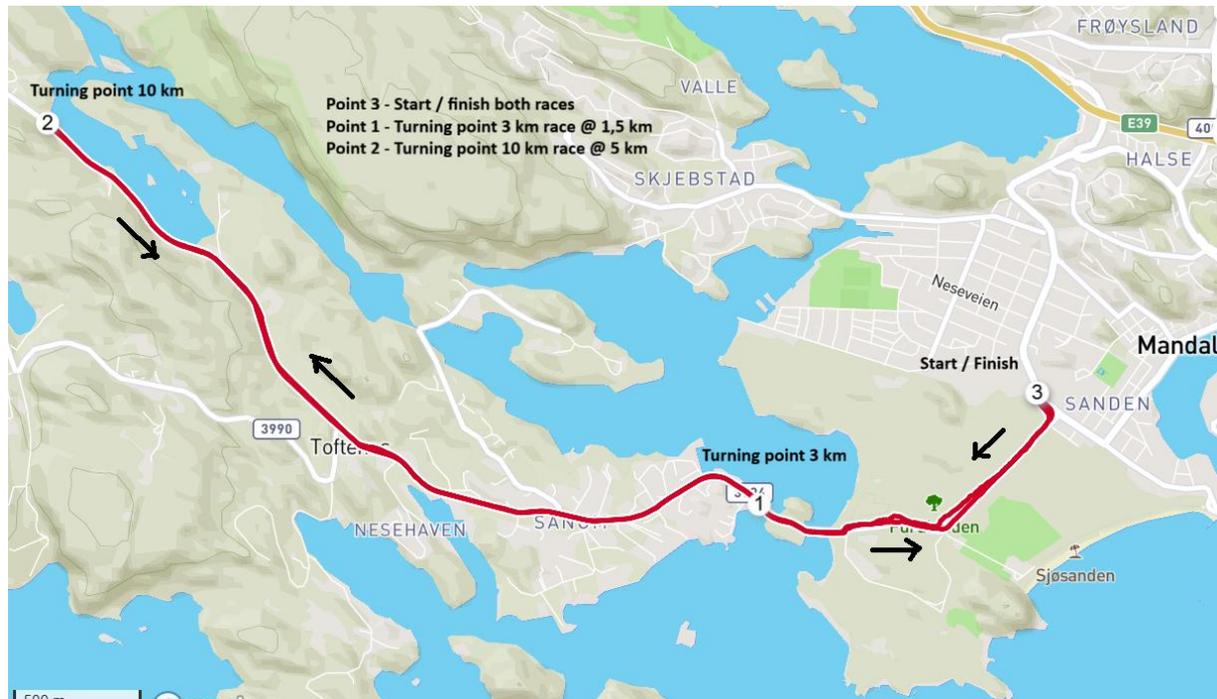


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COURSE MAP & DESCRIPTION



Start / Finish line



Turning point



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Pedestrian crossing to be used both ways

