

WOC 2019

NOKIAN TYRES
WORLD ORIENTEERING
CHAMPIONSHIPS
ØSTFOLD NORWAY 2019

12 -17 August



WOC 2019
BULLETIN #4

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Welcome to the Nokian Tyres WOC 2019

On behalf of WOC 2019 Organising Committee, I wish you all a warm welcome to the Nokian Tyres, World Orienteering Championships, in Østfold, Norway, 12 -17 August 2019.

Norwegian Orienteering Federation has delegated responsibility for planning and conducting the WOC 2019 to the orienteering clubs and the local orienteering federation in Østfold. Eight orienteering clubs in collaboration with the local orienteering federation have established an organiser company. Planning for the WOC 2019 have been done as a wide collaboration between the organising committee, the orienteering clubs, Østfold county and all the municipalities in Østfold. We will do our best to facilitate good conditions for the athletes, the teams and IOF representatives.

A warm welcome to all

Per Bergerud
Director WOC 2019



Welcome to Østfold

It is a great pleasure to welcome you to the World Orienteering Championships 2019 that will be held in Østfold, one of 18 regions in Norway. You will find it in the south-east part of Norway, close to the Swedish border. Østfold has unique areas whether you like hiking in the forest, visit an idyllic town, enjoy our beautiful coastline, visit tourist attractions or just enjoy one of many activities that we offer. Either way, we promise that you will be in good hands.

Orienteering is a sport with long traditions in Østfold. Take Halden as an example, where we find some of the best orienteers in the world. Halden Skiklubb has produced a number of world orienteering champions over many years, and Fredrikstad, Sarpsborg and Mysen have world elite runners as well. During the last couple of years, several major national orienteering competitions have been held in different cities of Østfold. The Norwegian O-festival - Norway's largest orienteering race, was hosted by Sarpsborg in 2016, and the Norwegian orienteering Championship was staged by Halden in 2017.

Therefore, we are sure that we will be well prepared to welcome the world elite runners when our orienteering clubs join forces to organise the events. This will be the fourth time the WOC is staged on Norwegian soil, and we are incredibly proud that this assignment has been awarded to Østfold for the first time.

We will do our best to support the organiser.

We look forward to a week of major sporting achievements, drama and excitement and last but not least, good companionship.

Enjoy!

Ole Haabeth
Chair, Østfold county council



Welcome to Sarpsborg

It is a great pleasure for me to welcome you all to Sarpsborg for the World Orienteering Championships 2019. We are the proud host of the championship in a beautiful and historic city combining a unique coastline, large forest areas and enthusiastic audience. Sarpsborg was founded in 1016 by King Olav Haraldsson. He had this town as his capital for several years but left for good in 1028. He died at the Battle of Stiklestad in 1030.

Sarpsfossen was one of the sights of Northern Europe when the largest volume of water in Scandinavia thundered in free fall over the precipice. Today one can admire what this enormous waterpower has created - the huge industrial plants.

Our main factory, sited near the great waterfall, is Borregaard. It was at first a sawmill, but it burnt to the ground and was replaced by a sulphite pulp mill to produce paper and wood pulp. Today Borregaard Industries is one of the world's leading companies in several chemical products.

We hope Sarpsborg will be an excellent arena for exciting concerts and ceremonies, but also a place where you can meet across borders.

Sarpsborg wish all the athletes good luck!

Sindre Martinsen-Evje

Mayor of Sarpsborg Municipality



Sponsors and partners

Gold sponsor



National main sponsors



National cooperative partners



Public cooperative partners



NOF main sponsors



1 Information about the organiser

The company *VM Orienteering 2019 AS* is the organiser of the Nokian Tyres World Orienteering Championships 2019.

CEO WOC 2019:

Accounting: Per Bergerud
Chief Event Office: Tor Ragnar Andersen
Environment: Tom Wahlgren
Arena Speaker: Hanne Lerche Raadal
Kjell-Erik Kristiansen

Event director:

Bjørn Axel Gran
Quarantines: Bent Galborg and Vidar Hauge Halvorsen
Start: Jan-Erik Fredriksen and Monica Meum Johansen
Controls/forest: Espen Fiskum
Refreshments: Espen Danevad
Antidoping: Rune Siewartz Nielsen

Chief IT and timekeeping:

Hallvard Koren
Cabling: Per Holm and Jan Arild Johnsen
Finish: Eirik Nordbrøden
TV-production: Karel Jonak (Gearbox Production)
Timing: Tommy Jauhojärvi (Emit), Peter Löfås (EQ Timing)
GPS-tracking: Jakob Ødum (TracTrac)

Chief Security, preparedness & transport:

Tore Sandem
Transport WOC: Lasse Kristiansen

Chiefs Arena:

Asle Gudim and Jørn Haugerud

Chiefs Media and market:

Claes Tommy Hærland and Martin Nielsen

Media services: Jens Erik Mjølnørød

Web: Marius Bjugan

Chiefs Culture and ceremonies:

Bente Jæger and Geir Endregard

Prize-ceremonies: Runa Lien Backstrøm and Guro Bryggen

Chiefs Spectator races:

Finn Henry Lillestrand and Anne E. Ramtvedt

Chief Youths and volunteers:

Svend Sondre Frøshaug

Chief Course planning and mapping:

Bernt O. Myrvold

Map-Manager: Øyvind Helgerud

Map maker: Kristen Treekrem

Course team:

Tom Arild Karlsen (Long distance)
Unni Strand Karlsen (Long distance)
Tormod Jensen (Middle distance qual. and final)
Morten Johansen (Relay)
Erik Sandbæk (Relay)

1.1 Event advisors

IOF Senior Event Advisor:

Daniel Leibundgut

IOF Assistant Event Advisor:

Lars Forsberg

IOF IT Assistant Event Advisor:

Henning Spjelkavik

National Controllers (NOF):

Ivar Maalen and Kjell Blomseth

1.2 Contact information

Official info: eventor.orienteering.org/Events/Show/5326

Email: post@woc2019.no

Web page: www.woc2019.no

WOC 2019 Event Office: Tom Wahlgren

Email: tom.wahlgren@gmail.com

Phone: +47 911 17 106

Opening hours: see section 4.1

Other contacts:

Event director: Bjørn Axel Gran, bjorn.axel.gran@woc2019.no, +47 909 55 295

Media services: Jens Erik Mjølnerød, jens Erik@mjolnerod.no, +47 917 85 911

Accounting/invoicing: Tor Ragnar Andersen, tragn@online.no, +47 928 98 311

Training: Håvard Lucassen, training@woc2019.no, +47 414 41 243

2 Program

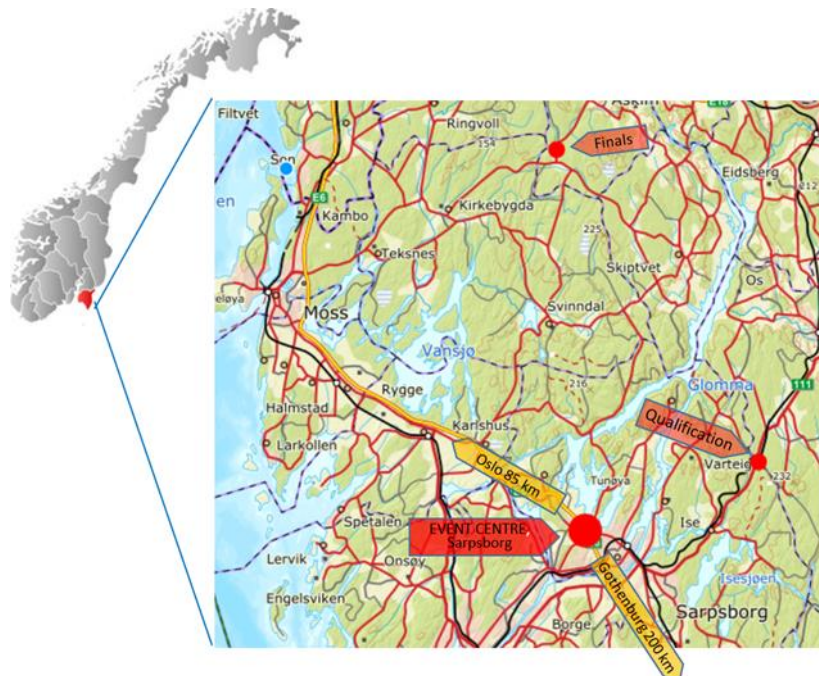
The timetable for WOC2019 is shown in the table below.

Date	Time	Event/Race	Location
		Team arrival and training	Østfold, Sarpsborg
10.08	12:00-18:00	Event Office and accreditation is open	Event Centre
Sun. 11.08	09:00–12:00	Event Office and accreditation is open	Event Centre
	12:00	Deadline for final name entry	IOF Eventor, Event Office
	15:00–20:00	Event Office and accreditation is open	Event Centre
Mon. 12.08	09:00-12:00	Event Office is open	Event Centre
	10:00-14:00	Model Event for all competitions	Rudskogen
	12:00	Competition entry deadline (names of the competitors and start group) for Middle distance qualification	IOF Eventor
	13:00-14:30	Technical Model Event	Arena Knatterudfjellet
	15:00-19:00	Event Office is open	Event Centre
	17:00-18:00	Team Officials' Meeting Middle distance qualification	Event Centre
	18:30-19:00	Concert	Sarpsborg Town Square
	19:00-19:30	Opening ceremony (including team presentation)	Sarpsborg Town Square
Tue. 13.08	8:45-14:00	Event Office is open	Arena Knatterudfjellet
	09:40	Middle distance qualification: Quarantine check in deadline	Close to Arena Knatterudfjellet
	10:00-13:00	Middle distance qualification First start Women: 10:00 First start Men: 10:01	Arena Knatterudfjellet

Date	Time	Event/Race	Location
	13:30	Competition entry deadline for Long distance	IOF Eventor
	16:30-19:00	Event Office is open	Event Centre
	17:00-18:00	Team Officials' Meeting Long distance	Event Centre
Wed. 14.08	10:00-19:00	Event Office is open	Arena Mørk
	10:20	Long distance: Quarantine check in deadline	Spydeberg skole
	10:00-18:45	Long distance Estimated first start Men: 10:24 and Estimated first start Women: 13:14	Arena Mørk
	16:10	Flower ceremony Men	Arena Mørk
	18:20	Flower ceremony Women	Arena Mørk
Thu. 15.08	9:00-12:00	Event Office is open	Event Centre
	15:00-17:00	IOF Family / Media race	Hvaler
	16:30-19:00	Event Office is open	Event Centre
	17:00-18:00	Team Officials' Meeting Middle distance final & Relay	Event Centre
Fri. 16.08	9:00-12:00	Event Office is open	Event Centre
	13:10	Middle distance final: Quarantine check in deadline	Spydeberg skole
	13:30-19:00	Event Office is open	Arena Mørk
	13:30-18:45	Middle distance final Estimated first start Women: 13:28 and Estimated first start Men: 15:45	Arena Mørk
	15:55	Flower ceremony Women	Arena Mørk
	18:20	Flower ceremony Men	Arena Mørk
	20:00	Competition entry deadline for Relay	IOF Eventor
	20:00-20:30	Concert	Sarpsborg Town Square
20:30-21:00	Medal ceremonies Long & Middle distances	Sarpsborg Town Square	
Sat. 17.08	9:00-12:00	Event Office is open	Event Centre
	14:00-20:45	Event Office is open	Arena Mørk
	16:00	Relay: Quarantine check in deadline	Arena Mørk
	16:20-21:00	Relay Start Women: 16:20 Start Men: 18:30	Arena Mørk
	ca. 20:40	Medal ceremony Relay and Closing ceremony	Arena Mørk
	22:00	Dinner	Event Centre
	22:30-02:00	Farewell party	Event Centre
Sun. 18.08	9:00-13:00	Event Office is open	Event Centre
		Teams departure	Østfold, Sarpsborg

3 Venues, Access and Transportation

3.1 Overview



3.2 Transport /travel opportunities

For those teams, media, IOF officials and guests that have ordered the WOC transport package, the organiser will provide transport from the Event Centre to the arenas, model events and back. The transport schedule will be available in the team package at the Event Office.

3.3 Arenas and Quarantines

The Middle distance qualification will take place at Knatterudfjellet, situated between Sarpsborg and Rakkestad, 16 km from the Event Centre in Sarpsborg.

Coordinates: 59.343047, 11.271166

The quarantine for the Middle distance qualification is marked from the road junction of Rv22 to Skjebergdal / Børtevang. Maximum driving distance is 6 km.

Coordinates: 59.300393, 11.220435

The Long distance, Middle distance final and the Relay will take place in Mørk area in Spydeberg municipality, 40 km from the Event Centre.

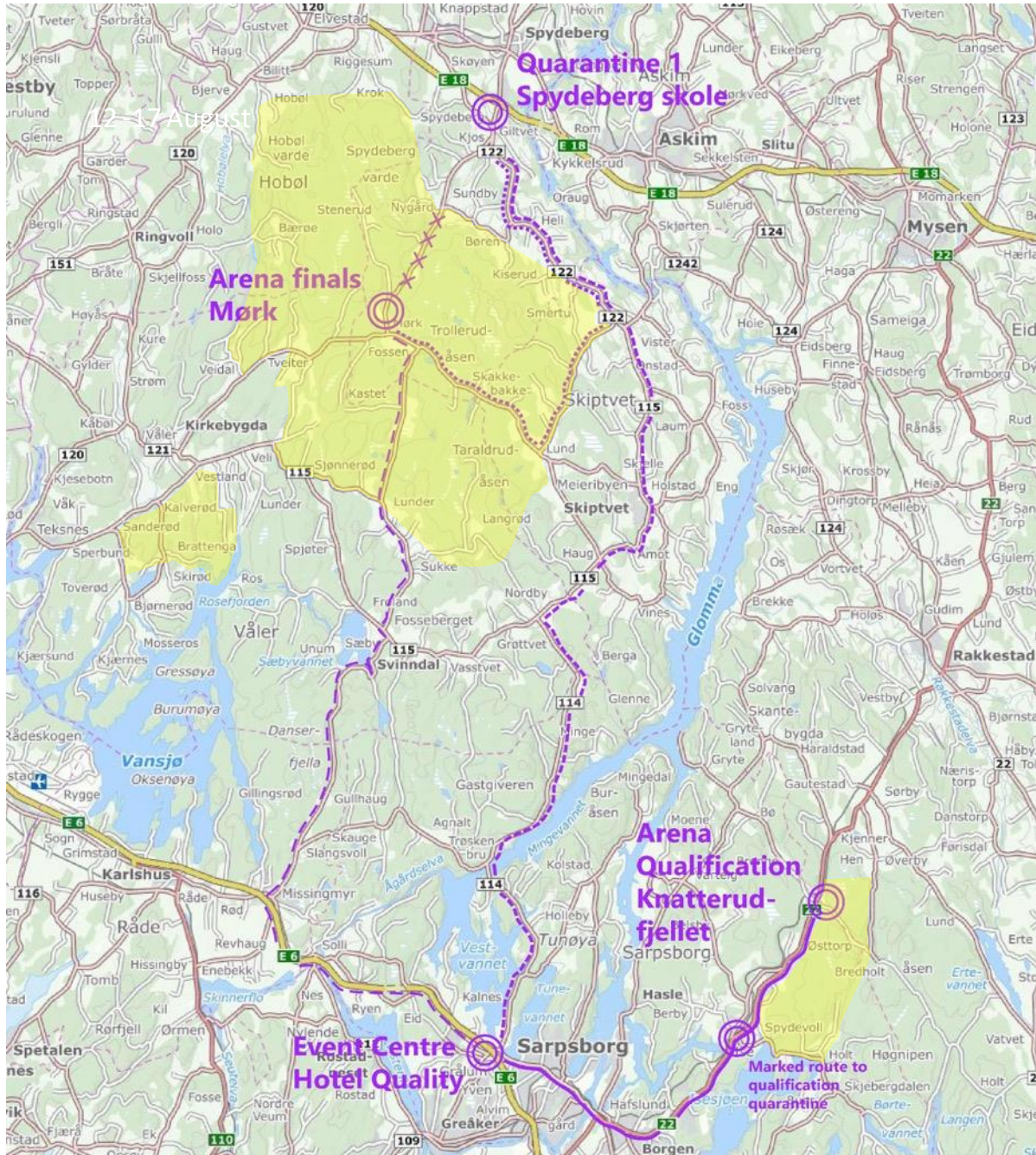
Coordinates: 59.530413, 11.001057

The team parking is located south of the arena. This team parking area will have a priority exit to ensure quick departure for teams. Walking distance to the arena entrance is 450 m. For heavy team equipment a transport will be provided from the parking to the entrance of the team zone in the arena and back.

The quarantine for the Long distance and the Middle distance final will be at Spydeberg skole

Coordinates: 59.596008, 11.068275

Recommended route from the Event Centre to arenas and quarantines:



Recommended routes

- Event Centre (Hotel Quality) - Arena finals (Mørk)
- Event Centre (Hotel Quality) - Arena Qualification (Knatterudfjellet)
- Event Centre (Hotel Quality) - Quarantine 1 (Spydeberg skole)
- Quarantine 1 (Spydeberg skole) - Arena finals (Mørk)

× × × × Closed road on day of finals

Embargoed areas

4 Event Centre (WOC Event office)

The Event Centre will be located in Quality Hotel & Resort Sarpsborg. Note that the Event Centre is 3.6 km north-west of Sarpsborg city centre, just beside the E6 (Exit 7, Lekevollkrysset).

Coordinates: 59.296201, 11.064756

At the Event Centre there will be rooms for:

- WOC Event office (room Engsmyr)
- Team Officials' Meetings (room Gandalf 1)
- Tourist office (room: Engsmyr)
- IOF Conferences and Meetings (see Hotel conference overview screens)
- Pre-booked Meeting rooms (see Hotel conference overview screens)



At the **Event office** there will be accreditation for teams, officials, media and the VIP groups (IOF Family, IOF Officials, IOF Guests, Future WOC Organisers).

4.1 WOC Event Office is opening hours

The WOC Event Office opening hours are:

Day	Program	Quality Hotel, Sarpsborg	Arenas
Saturday 10.08.	Arrival of teams & Team Accreditation	12:00-18:00	-
Sunday, 11.08.	Arrival of teams & Team Accreditation	9:00-12:00, 15:00 - 20:00	-
Monday, 12.08.	Model events	9:00-12:00, 15:00 - 19:00	-
Tuesday, 13.08.	Middle distance qualification	16:30 – 19:00	8:45 – 14:00
Wednesday, 14.08.	Long distance	-	10:00 – 19:00
Thursday, 15.08.	Rest day	9:00 – 12:00, 16:30 – 19:00	-
Friday, 16.08.	Middle distance final	9:00 – 12:00	13:30 – 19:00
Saturday, 17.08	Relay	9:00 – 12:00	14:00 – 20:45
Sunday, 18.08	Departure of teams	9:00 – 13:00	

5 Entry information

5.1 Registration for Teams

Entries are to be made via IOF Eventor by the National team manager, on:

eventor.orienteering.org/Events/Show/5326

- The event start date is 12 August 2019
- The deadline for Team Size Entry is 12 June 2019 at 23:59 (-2 months).
- The deadline for Team Names Entry is 2 August 2019 at 23:59 (- 10 days).
- The deadline for Late Entries, Changes of Team Size or Team Names is 11 August 2019 at 12:00

The Event office offers access to IOF Eventor.

Late Entries, Changes of Team Size or Team Names

Late Entries and changes will be accepted, if possible, up to 11 August 2019 at 12:00. Late entries and changes will always have a defined extra fee (surcharge). **After team names deadline (2. August 2019) late entries and**

changes in team size or team names will always be treated equally and must be communicated directly to the organiser on entry@woc2019.no. The organiser makes the changes in IOF Eventor thereafter.

Competition Entries

For the Middle distance qualification names of the competitors and their starting group shall be entered in IOF Eventor before 12:00 Monday 12 August 2019.

For Middle distance qualification athletes should be assigned to three starting groups: 1-early, 2-middle, 3-late. The second athlete per team being assigned to a group may be filled in only after the first three athletes have been put into one of the three groups. If a team misses the deadline, the team members will be allocated to starting groups and legs by the organiser and cannot be changed later on by that team (as per IOF rule § 9.14).

For the Long distance names of the competitors shall be entered in IOF Eventor before 13:30 Tuesday 13 August 2019.

For the Relay the team line-up shall be registered in IOF Eventor before 20:00 on Friday 16 August 2019.

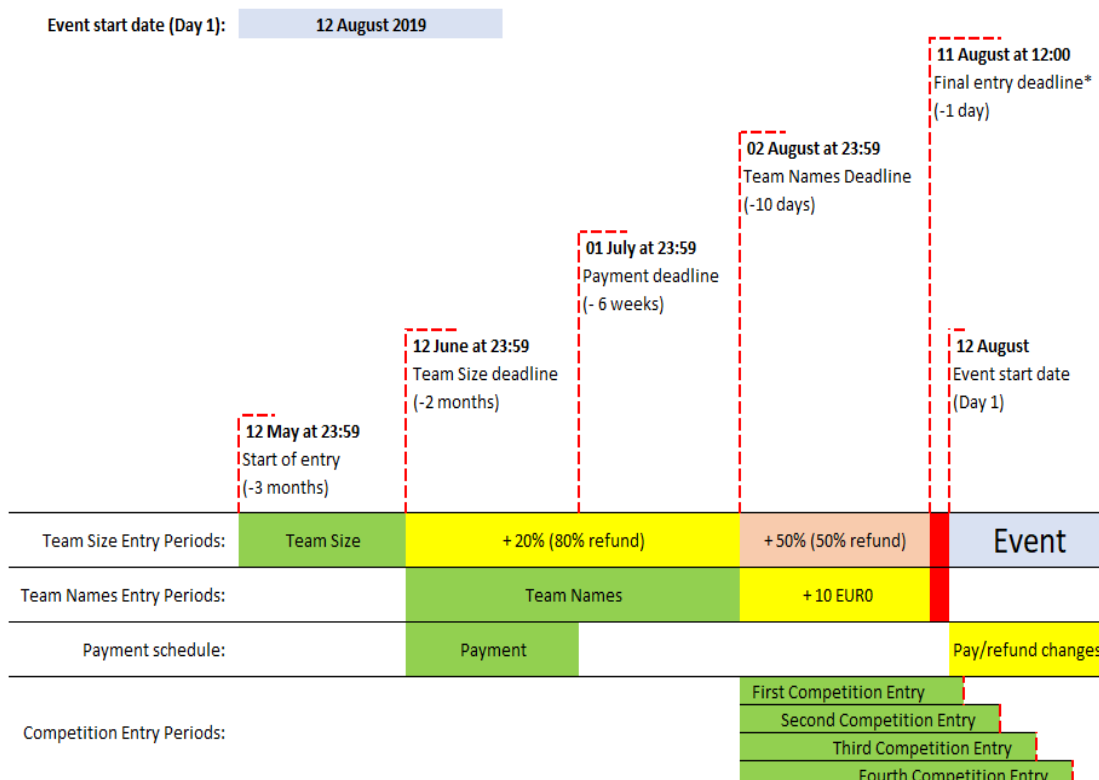
Changes of names for competition

Middle distance qualification: After competition entry deadline and no later than 120 minutes before the first start, a competitor may be replaced for a valid reason (e.g. accident or illness). Change of starting group or qualification race heat is not permitted.

According to IOF rules § 12.5 the § 9.10 does not apply to the WOC Long distance competition and late replacement of runners is not allowed.

Relay: After competition entry deadline teams may make changes or replacement, for a valid reason, no later than 120 minutes before the 1st-leg start in their respective class.

Changes are done in written form at the Event office, or by e-mail to entry@woc2019.no. A request of change is valid when the Federation has received a confirmation from WOC2019.



5.2 Payments

The payment should be transferred to the WOC2019 AS bank account. Payment in Norway are in Norwegian krone (NOK). **Important note:** The payment shall also cover all bank charges. Federations can request copies of invoice via email: tragn@online.no

Payment details:

Bank: Eidsberg Sparebank
Postal address: Karl Johans gate 1, NO-1706 Sarpsborg
E-mail: post@esbank.no
IBAN: NO43 1020 3012 360
SWIFT/BIC: EIDSNO21XXX

5.3 Entry fee descriptions (competitors/teams/team officials)

Category		Fee
Competitors	Accreditation fee per athlete (see note 1)	1 250 NOK
	Entry fee per individual race	1 000 NOK
Relay Teams	Entry fee per relay team	2 200 NOK
Team officials	Accreditation fee per official (see note 1 & 2)	2 500 NOK
Transport package	Per person (see note 3)	1 500 NOK
Dinner (last day)	Per person (see note 4)	250 NOK

Notes

1. Accreditation fee covers model events, parking at the arena and a set of competition maps.
2. For teams where the function of the team official is performed by an athlete, no fee will be charged for the team official.
3. WOC transport package includes transport from the Event Centre to the competitions, including the model events and back. Order WOC transport package in Eventor under "Services" within 02. August 23:59.
4. At the last night a dinner will be offered for all competitors and team officials. The dinner will be followed by a farewell-party (volunteers and teams). Free entrance at the farewell party, drinks and snacks will be sold.

5.4 Registration for Media and VIP groups

All registrations shall have been made in IOF Eventor according to correct category: [eventor.orienteering.org/Documents/Event/2948/1/Entry-Guide-for-Media---VIP-\(IOF-Family%2c-IOF-Officials%2c-IOF-Guests--Future-organisers\)](http://eventor.orienteering.org/Documents/Event/2948/1/Entry-Guide-for-Media---VIP-(IOF-Family%2c-IOF-Officials%2c-IOF-Guests--Future-organisers)) To a limited extent, accreditation for media will be possible upon arrival in the media centre. Such accreditation should only go through: Jens Erik Mjølnerød, jenserik@mjolnerod.no, +47 917 85 911. Details about the media accreditation procedure is described in section 10 «Media».

IOF Family is a new category to motivate more of IOF member federation officers to take part of the IOF Family tent to have meetings and small talk. It is offered to IOF member federations officers, IOF commissions, Event Advisers, future WOC organisers and partners of WOC 2019. Basic services include:

- Access to IOF Family tent with table and chairs
- Working area for meetings
- Wi-Fi
- Electricity
- Maps/start lists
- TV screen for following the TV or arena production
- Coffee/tea
- Participation in IOF Family race
- Parking close to the arena

Description of fees:

Category		Fee
IOF Guests	IOF guest, Honorary President/Member, IOF Partners and Sponsors, no accreditation fee	-
IOF Family	Per person, basic services	400 NOK
Food coupon	Per person per day (see note 1)	150 NOK
Media	No accreditation fee	-
Transport package	Per person (see note 2)	1 500 NOK

Notes

1. Food coupons for Media and VIP groups: for a hot meal inclusive one drink, will be available for purchase in the arena only
2. WOC transport package includes transport from the Event Centre to the competition arenas, including the model events and back. Order WOC transport package in Eventor under "Services" within 02. August 23:59.

Payment details: See the section 5.2 «Payments»

5.5 Accreditation

All registered participants must *personally* check in for accreditation at the WOC Event Office (see section 4.1 «Event office opening hours») not later than the respective deadline for his/her first competition:

- Middle distance: Monday 12 August 2019 12:00 (Event office close at 12:00)
- Long distance: Tuesday 13 August 2019 13:30 (Event office close at 14:00)
- Relay: Friday 16 August 2019 20:00 (Event office close at 19:00)

Participation in the WOC events is only possible if all incurred costs are settled by 11 August 2019, 12:00 noon.

Each registered team member must present her/his personal passport before she/he can be accredited. A personal WOC ID card with photo will be handed out at accreditation. All accredited persons must wear it at all relevant times and present it for access to all means of transport and authorized zones. The online entry form on Eventor requests that all persons to be accredited provide a personal portrait photo for use on the ID card.

Any member of a team (athlete or team official) without a proper photo uploaded into IOF Eventor will get an accreditation card without a photo. These person(s) need to always bring an ID with them together with the accreditation card.

At accreditation, every athlete receives a WOC-bag with the ID card, two emiTags, printed version of Bulletin 4, model maps and a few souvenirs. The emiTags are personally assigned and both shall be used in all competitions. The emiTags shall not be used by other athletes.

Teams will be asked to provide a telephone number so that the organisers can quickly contact key team officials if necessary. Each team will get an information package at the event office after accreditation which includes:

- Contact information form (to be filled in and returned at Event Office)
- Flag carrier form (to be filled in and returned at Event Office)
- Parking permits for Arena/Quarantines
- Team list of emiTags assignments
- GPS harness for those athletes who have ordered (see info about GPS)
- Access cards for the Coaching zones (2x) and for the Finish Line (minimum 1x)
- Tourist information material

Accreditation for VIP groups and media is possible within the opening hours of the Event Office, see section 4.1.

5.6 Summary of entries

The number of entries per 2. August are:

Federation	Men	Women	Team officials	Total
Argentina	1			1
Australia	5	5	2	12
Austria	4	4	3	11
Belarus	3	2		5
Belgium	4	1	2	7
Brazil	3	3	1	7
Bulgaria	4	4	1	9
Canada	4	4	2	10
China	5	5	4	14
Colombia	1	1		2
Croatia	1	1		2
Cyprus	1			1
Czech Republic	4	4	4	12
Denmark	4	4	5	13
Estonia	5	4	3	12
Finland	6	5	5	16
France	6	4	4	14
Germany	4	4	2	10
Great Britain	5	5	3	13
Hong Kong	4	4	3	11
Hungary	3	4	1	8
Ireland	4	3	1	8
Israel	3			3
Italy	4	4	1	9
Japan	4	4	2	10
Korea, Democratic People's Republic of	1			1
Korea, Republic of	3	3	1	7
Latvia	4	4	2	10
Lithuania	4	4	1	9
Moldova, Republic of	3	1		4
Netherlands	2			2
New Zealand	5	3	1	9
North Macedonia		1		1
Norway	8	6	7	21
Poland	3	3	2	8
Portugal	1	1		2
Romania	1	1		2
Russian Federation	4	4	2	10
Serbia		1		1
Slovakia	4			4
Slovenia	1			1
South Africa	1			1
Spain	4	3	1	8
Sweden	6	6	5	17
Switzerland	6	5	6	17
Turkey	3	1	1	5
Ukraine	5	3	1	9
United States	5	4	1	10
SUM (48 Federations)	166	133	80	379

6 Accommodation and Food

6.1 Accommodation

For information about accommodation see information in Bulletin 3.

6.2 Food

In the Quarantine and the team zone in the arenas, we offer fruit and water.

In the spectator area at Mørk and Knatterudfjellet arenas cold & hot food and drinks are sold. Vegetarian food will be offered at both arenas. **Menu WOC 2019 (♣ = vegetarian):**

Wraps Østfold Chicken	♣ Energy bar with oats and barley with honey
♣ Wraps Troll Salmon w/cream cheese	♣ "Lefser" from Østfold with butter, cinnamon and sugar
♣ Wraps Quinoa Salad	
Healthy WOC - sausages & coarse waffles, ketchup and mustard	Ice Cream from Bamsrudlåven with vanilla, hook, apple, blackberry and chocolate with coffee
Chicken Wiener Sausage & coarse waffles, ketchup and mustard	Warm & cold drinks
Healthy WOC – sausages & Norwegian flat potato bread, ketchup and mustard	Coffee
Chicken Wiener sausage & Norwegian flat potato bread, ketchup and mustard	Tea
Moose Burger with Cranberry Cream and beets	Still water
Guld – stew from Østfold with meat from Eastern Red Cabbage and root vegetables	Sparkling water
♣ Guld - stew with root vegetables	Raspberry lemonade
Chicken with love and dinner pearls with salad	Mashed apples lemonade
♣ Love plate with dinner beans and salad	Rhubarb lemonade
	Apple & red beet
	Apple with carrot, ginger and chili
	Holsteiner Cox - pure apple and the only one of its kind in Norway

6.3 Dinner and farewell party

At Saturday evening 17 August 2019 a two-course dinner (drinks are included) will be served for all competitors and team officials who have booked. It is still possible to buy dinner tickets at the Event Office until Friday 16 August 2019.

After the dinner the farewell-party for teams and volunteers is scheduled. The entrance is free, drinks (non-alcoholic and alcoholic) and small snacks will be sold. Please note that it is not allowed to bring private drinks. A DJ will ensure a good mood 😊.

6.4 Waste management

Help us keep our arenas clean!

Please use our rubbish bins for your waste. PET-bottles/aluminium cans and glass bottles are collected separately in order to be recycled, while the residual waste will be energy recovered.

7 Embargoed areas

For information about all embargoed areas, see info at: eventor.orienteering.org/Events/Show/5326

and use the following link for details:

www.google.com/maps/d/viewer?mid=14n3Qcf0kioa5mV3QB8kcvzrehhQ

The embargoed competition areas are also shown at the map in section 3.3 together with recommended transportation routes.:

Embargoed areas WOC 2019:

The areas are embargoed for runners and team officials until all competitions in the respective area are finished. Any attempt to visit, inspect or train in the competition terrains are forbidden, unless explicitly permitted by the organiser. Driving, biking and running along paved roads (roads with asphalt cover) is not permitted. Along the access roads to the Mørk arena, it is not allowed to stop for team members within the embargoed area.

See also additional information in section 13.1 «Spectator race for WOC athletes».

To attend the Technical Model Event the access to the Arena Knatterudfjellet is allowed.

See Bulletin 3 or visit woc2019.no

Embargoed reserve areas WOC 2019: The areas are embargoed for runners and team officials until all competitions are finished.

Latest colour copy of maps of embargoed areas.

You will find a colour copy of the most recent version of any previous orienteering map(s) of the embargoed areas on the WOC2019 website and in Bulletin 3.

After WOC2019 - valid from 1 September 2019 - Norsk Orientering Forbund (NOF) has published new embargoed areas for future competitions: [Norsk Orientering \(Terrengsperringer\)](#)

8 Training possibilities

Maps, areas, available training courses are announced and updated at: woc2019.no/en/trainings.

Contact person: Håvard Lucassen, using e-mail: training@woc2019.no

Prices for WOC2019 official training maps and maps which can be ordered from WOC:

Category	Rate
OCAD-file*	1 500 NOK per file
PDF-file*	1 000 NOK per file
Printed map with or without course and controls	50 NOK

*: The tenant may invite runners from other teams [in division 2 and 3 (IOF's ranking list)] for a cost of 50 NOK per print, the total amount must be paid to WOC2019.

Before 10 August 2019 the printed maps can be picked up at Inspiria, Sarpsborg (www.inspiria.no), located next to the Event Centre, during the opening hours (09:00-15:00 on weekdays/11:00-16:00 in weekends). From 10 August 2019 the maps can be picked up and paid at the Event office during the opening hours.

9 Rules and General information

9.1 Competition rules

The Competition Rules for IOF Foot Orienteering Events (version of 2019) shall be applied for participation in the World Orienteering Championships 2019. Please refer to the Competition Rules on the IOF website: orienteering.sport/orienteering/competition-rules/

The qualification rules for the Middle distance qualification is specified in § 12.10:

“In the Middle distance final, the competitors placed number 15 and better in each qualification race heat may participate.

Further places up to a maximum of 60 (subject to clause b) are selected as follows:

- a) The best placed runner from Federations which do not have a runner in the first 15 of any heat, considered in the order of their placing in the qualification race heats (If two athletes from the same country have the same place in different heats, the one who is the least time behind the winner of their heat is chosen).*
- b) If two or more runners from different countries are tied for the last qualifying place under (a), all may participate in the final.*
- c) In order to be selected for the final under (a) or (b), an athlete must have been within 100% of the heat winner’s time in their qualification race.”*

The entry deadlines published in the Foot Orienteering Wcup 2019 special rules are overruled by the information given in section 5.1 of this document.

9.2 Classes and entry regulations

Classes: WOMEN, MEN without any age restrictions (§ 5.7). All competitors represent a Federation (§ 6.5). All athletes must be full passport-holding citizens of the country they are representing (§ 6.2). Athletes being citizens of more than one country should represent the only country they have run IOF events for during the current calendar year (§ 6.1).

9.3 Anti-doping

Doping is strictly forbidden, and the organisers of the world championships are dedicated to support the anti-doping authorities in their work. Doping controls may be carried out any time during the competition period in accordance with the procedures described in the WADA International Standard of testing. The IOF Anti-Doping Code and rules and the World Anti-Doping Code 2015 apply as of 1 January 2015. Athletes who are selected for the doping tests must bring an official identification (with photo) to the doping test area. The athlete should also bring along their therapeutic use exemption (TUE) if applicable. In general, it is advisable that athletes bring their ID to all competitions and events. For more information, please consult: orienteering.sport/iof/resources/for-athletes/athletes-licence/

9.4 Insurance

Each federation is responsible for its own insurance (as per Rule #6.4). Insurance against travel, accidents, health and responsibility damage is the responsibility of the federation or the individual competitor according to their national regulations.

9.5 Climate and any hazards

Average temperature in Sarpsborg in August is 16 °C. Historical observed is from 8 °C to 22 °C. Low humidity, but risk of heavy rain showers (normal precipitation in Sarpsborg in August is 93 mm). No specific hazards. In wet and shadow areas there are mostly a number of insects. For pre-starts we recommend using protective cloths and/or protection against insects.

9.6 Emergency and Health Services (first aid)

First-aid services will be provided at the competition arenas. Each federation is responsible for its own insurance (as per Rule #6.4). Outside the competitions, you may use the emergency and health services of the region. The phone numbers for emergency calls in Norway are:

Medical: 111

Police: 112

Fire: 113

Emergency services general practitioner: + 47 116117

Hospital Østfold, main switch: +47 69 86 00 00

Visit adress: Kalnesveien 300, 1714 Grålum. Separate entrance for emergency.

9.7 Directions for obtaining entry permits (visas)

Some people do not need a visa to visit Norway because they hold a passport from a country that Norway has a visa exemption agreement with. This also applies if you have a residence permit in an EU/EEA country or if you have a special passport. For more information, see: udi.no/en/word-definitions/persons-who-do-not-need-a-visa-to-visit-norway-/#link-708

9.8 Athlete licence

The licence is needed for athletes participating in World Orienteering Championships and World Cup competitions. The Application (signed form) and payment should reach the IOF Office or IOF Office representatives before participating in a World Championship or World Cup event. The licence is annual and is valid for all orienteering disciplines. Payments of the annual licence fee is done in IOF Eventor, please consult the proper IOF Eventor Guide for this. Last minute signed licence forms can be scanned/photographed and sent to iof@orienteering.org for a "Preliminary" registration status of the licence. The original can be either sent directly to IOF Office or handed over to the Event Centre. IOF will not accept cash payments of the licence fee. If your federation needs any special arrangements, you must contact iof@orienteering.org.

9.9 Photo and video disclaimer

By taking part in WOC 2019 as a participant or spectator, you acknowledge your consent to interview(s), photography, audio recording, video recording and its/their release, publication, exhibition, or reproduction to be used for news, webcasts, promotional purposes, telecasts, advertising, inclusion on websites, or any other purpose by WOC 2019 organisers and their affiliates and representatives. No drones are allowed in the competition area without written permission from the organisers.

9.10 WOC Fairness rules

- 1) It is not allowed (and not fair) to gain any unofficial information about the race, especially about courses, maps, location of pre-starts etc.
- 2) Except for the relays, team members heading to pre-starts are not allowed to visit the arenas before their respective competitions. It is also not allowed (and not fair) to gain any unofficial information about the arenas from other persons.
- 3) When staying in the quarantine, mobile phones must be completely turned off. Random checks are possible.
- 4) It is allowed to use music players without any built-in connectivity. Inside the quarantine, athletes wearing headphones might be randomly asked to display their players for checking.
- 5) All tents inside the quarantine must stay open so one can have a look inside.

- 6) It is strictly forbidden to bring any electronic devices (except for watches) to bathrooms or any other private rooms – no matter if the device is turned on or not.
- 7) Athletes are only allowed to use passive GPS devices, i.e. not providing any navigational or mapping function for tracking the route.
- 8) It is not allowed to use any old maps of the competition areas after having left the accommodation on competition day.
- 9) It is strictly forbidden for team members to re-enter the competition area until the last WOC athlete has arrived at the finish.
- 10) Violations of these rules should be immediately reported to any staff to preserve fairness.
- 11) Violation of these rules may result in the disqualification of the whole team.

10 Media

10.1 Media services

The media service include: free wi-fi, electricity sockets, and a working area. These services will be available in the media tents at the arenas. Additional information for media representatives is published at: woc2019.no/en/media-en.

Media Package: A WOC 2019 media package will be ready when you pick up your media accreditation. This will contain essential information about the event and the competitions including more detailed information on media access to competition terrain, media parking permit, and a copy of Bulletin 4.

Transportation: There will be no dedicated transportation for media. Media is expected to use their own transportation. Anyway, we might be able to arrange transportation to dedicated photo controls in the forest during some of the competition days.

10.2 Media instructions

Photo and Video: During the competitions, all photographers and video operators have to wear a special photo bib. The bibs will be handed out at the Media Center at the arenas of each competition day during media briefing sessions. A EUR 10.00 deposit will be required, and it will be paid back upon return of the photo bib.

A media briefing for all photographers and video operators will be held on each competition day in the Media Center.

Special access to terrains may be provided for accredited photographers.

Organisers' official photographers will upload photos from each competition day to www.flickr.com/photos/142236040@N08/albums. These photos can be used free of charge, but please credit the author when using the photos.

Press Conferences: Press conferences will be held in the Media Center at the arenas directly after the flower ceremonies. Press conferences will be held in English. The three best teams or athletes of every competition will be interviewed.

Social Media: Official hashtag: #WOC2019

Instagram: www.instagram.com/wocorienteering

Facebook: www.facebook.com/wocorienteering

Twitter twitter.com/orienteeringWOC

10.3 Live services

There will be a TV production from all the final's by Gearbox Production (Karel Jonak). Preliminary, the following TV stations will broadcast live: NRK, YLE, SVT, ERR, TV2 (DEN).

We will offer a big screen in the Mørk competition arena of all finals with live-cameras, GPS- tracking and live-results. Speaker legend Kjell-Erik Kristiansen will provide great action with his live reporting in the arenas. Live-streaming will be available on orienteering.sport during the finals (partly payed service), whereas live results are free of charge.

For Middle qualification competition GPS tracking and live results will be provided via web/mobile (no big screen in the arena).

During the competitions, athletes may encounter camera crews in the terrain. Camera controls and intermediate time controls are not marked on the control description. Athletes may also be followed by running camera or by camera- drones during the race. The drones will keep proper distance to the athletes.

10.4 IOF Family / Media Race

On Thursday 15 August we would like to welcome the *IOF Family and Media* to a spectacular IOF Family/Media race at Hvaler. The race is not open for teams or spectators. One of the route choices might be solved the ocean way, and in any case, we promise fantastic surroundings. Socializing, with light snacks and drinks available after the competition. Please inform of any allergies or special dietary necessities upon entry.

Arena: Moloveien 244, Vesterøy (Allow 1 hour to get from/to the Event Centre)

Coordinates: 59.037754, 10.947852

Follow Rd 108 from Fredrikstad to Hvaler. Signposted from Asmaløy, ~400 m before the tunnel

Parking: for a fee at the arena (limited space). Free parking approximately 600 m to walk.

Free start at the arena between 15:00 and 17:30

Long course: 3.5 km (wet)

Middle course: 2.5 km (dry)

Short course: 1.5 km (dry)

Course planner: Terje Mathisen

Map: Vikersund 1:5000, 2 m contour interval, ISSOM 2017 up-dated 2019

Terrain: Spectacular coastal terrain with very little vegetation. Good runnability and hard surface. The terrain is 60-70% naked granite rock with some heather and bushes growing along the cracks generated by the last ice age. The longest course will force the runners to get wet. Swimming is allowed, but not required, the map show where wading across is possible. Depth about 1 m depending on the tides. Private properties (olive green) is out-of-bounds.

Entry to: vigdis@idrettsforbundet.no latest 14 August 23:59.

Responsible: Claes-Tommy Herland, tlf. +47 92 82 72 83 claestommy@icloud.com

There will be no complaints accepted, and hence no jury is appointed.



11 Competition information

11.1 Punching, timing system and GPS tracking

Punching system: Emit Touch-Free punching and timing system is used in all competitions. Each runner will wear two emiTags at the same wrist. The punching is performed by holding the emiTag 20 - 50 cm above the Emit control unit for a short moment. The LED light in the emiTag will start flashing after a successful punch and will keep flashing for 5 seconds. In case of any Emit-unit failure (no feedback signal) athletes must punch using the second Emit unit as a backup. Timekeeping services will be provided by EQ Timing. It will be possible to test the punching system at the technical model event.

The emiTags are handed out in the Event Centre as a part of the accreditation. It is the athlete's responsibility to bring the emiTags to the start for each race. The emiTags are tested at pre-start on all competitions. The emiTags will be collected at the finish of the relay. For athletes not running the relay, a team manager shall return all emiTags at the Event office no later than Saturday 18:00. EUR 80.00 will be charged for any lost or missing emiTag.

Start timing: One official releases the competitor at the start beep by taking his /her hand off the competitor's shoulder. For all competitions the listed start times will be used.

Finish timing: Finish timing: The finish time is taken, when the athlete's chest crosses the finish line. There is no punching at the finish line. The running times are rounded down to whole seconds.

GPS tracking: GPS tracking services will be provided by TracTrac. There will be GPS tracking for all competitors in all competition formats. It is mandatory for all runners to use the GPS. If a runner refuses to carry the device, the runner will be disqualified (§ 2.5, § 2.6 and § 26.10). Personal harnesses are allowed. The tracking device will be handed out at the call up.

GPS vests must be returned no later than 18 August at 12:00 at the Event office (by complete teams). A charge of EUR 30.00 will be imposed for any lost or missing GPS vest.

11.2 Clothing

Full body coverage is required, short-sleeved tops and tank tops are permitted.

11.3 Team official meeting

For each competition, a team officials' meeting (TOM) will be held the evening before, providing all important information about the competitions (see section 2 for schedule). TOM presentation slides from the team officials' meetings will be uploaded to the IOF Eventor after the meeting.

There will be one common meeting for Middle distance final and Relay.

All team officials' meetings will be held in the Conference Hall «Gandalf 3» of the Event Center.

Questions in advance for the meetings may be send to bjorn.axel.gran@woc2019.no until 15:00 on the respective day and will be answered during the meeting.

11.4 New competition maps

Competition maps will be collected at the finish. New maps will be handed out to the team leaders at the event office after the quarantine is closed.

11.5 Number bibs

All bib numbers will be distributed at the quarantine check-in of each competition.

Bib numbers must be placed visibly on the chest and may not be folded or cut. Safety pins will only be delivered on the first competition. Please re-use them for the other competitions.

11.6 Control descriptions

Control descriptions are in accordance with the IOF standard.

The control descriptions are labelled with the runners' number bib and will be available in the start corridor. The control descriptions are also printed on the competition maps.

At the Relays, control descriptions are only printed on the map.

11.7 Late starts

Runners who miss their start time due to their own fault are permitted to start but are timed as if they had started at their allocated start time. Runners who are late because of a fault by the organizers are given a new start time. In both cases the following procedure must be used at the start: A late athlete must report at the entrance of the pre-start. If the organizers decide there is still enough time to start at the allocated start time, she/he can continue through the start lanes followed by an official. If it is not possible for the runner to start at the allocated start time, she/he will be allowed to start one minute before the next runner on that course. However, athletes from the same federation are not allowed to start consecutively.

11.8 Quarantines

Arriving at the quarantine, the athletes have to check in by showing their accreditation card and sign the list before the quarantine closes. No-one will be allowed into the quarantine area after the deadline. Athletes will get two number bibs for each race, one to be worn in the front and another to be worn in the back. The warmup maps will be available at quarantine. Warmup maps are considered as part of quarantine.

All competitors are strongly advised to perform the emiTag battery test and in case of low battery indication request an emiTag replacement at the quarantine check-in desk.

All quarantines offer covered area (building or tents). You may stay inside or outside. Toilets and water are available. In the relay, the quarantine area is near the finish. Own team tents will be allowed at all the quarantines. Be prepared that tents have to be put up on hard ground.

There will be clock showing the official competition time.

Bags are transported to the finish. In case of two quarantines (Middle and Long distances) clothes will be transported from the quarantine 2 to the finish area.

Please respect the fairness rules in the quarantine and on the warmup map.

Coaches and athletes can leave quarantine at any time, but once they have left, they are not allowed to return.

Please be fair and remember the following important things:

- The use of mobile phones, computers or any communication device inside the quarantine is strictly forbidden;
- It is not allowed to bring any maps into the quarantine zones;
- Coaches are not allowed to follow the athletes beyond the -4 min at any competitions;
- The use of spiked shoes is strictly forbidden indoors;

- At the call up, right before the -4 min zone drinking water is available for all races.
- At the entrance of the quarantines the athletes may have to pass a mixed zone where selected TV station may request an interview. Athletes and coaches are asked to be cooperative if requested. Filming is permitted from the mixed zone while the athletes warming up but not in the quarantine tents.

At the entrance of the quarantines the athletes may have to pass a mixed zone where selected TV station may request an interview. Athletes and coaches are asked to be cooperative if requested. Filming is permitted from the mixed zone while the athletes warming up, but not allowed in the quarantine tents.

11.9 Pre-start and Start

The pre-start is marked on the warmup map. Only athletes registered for that race have access beyond the pre-start. Once the athletes pass the pre-start (i.e. go beyond -4' line) they are not allowed to go back to the quarantine.

The competitor's name and bib number are called at the pre-start. It is the competitor's responsibility to watch for his/ her start time. There is also a clock showing competition time in the pre-start area.

Athletes will reach the time start where GPS units are placed in the harness, emiTags are checked, and the control descriptions are handed out. There will be clocks on the start line showing the competition time. For specific details, see descriptions in each competition's section.

The start triangle is marked in the terrain by a control flag. The route to this flag is marked and compulsory for the competitors to follow all the way to the start point.

11.10 Coaching zones

There will be marked coaching zones at all arenas. One coaching zone will be at the arena passage. Coaches will be able to return to team zone. Two accredited coaches per team are allowed inside this zone. Special accreditation cards must be shown when entering the coaching zone. In the arena passage a table with refreshments: water and Maxim Sports Drink, «Fresh Orange Taste» is at the beginning of the coaching zone. Team coaches can hand out personal refreshments. In addition, a second small coaching zone is located close to the last control where accredited coaches may wait for finishing athletes.

11.11 Finish

The marked route from last control to the finish must be followed. After crossing the finish line, the athletes read out their emiTags, return the map and the GPS. Refreshments will be provided as well as access to first aid if needed. Coaches are allowed wearing the finish access ID card (access from the team zone). Athletes selected for anti-doping testing will be met here by their chaperones. Athletes then access the mixed zone on the way to the team zone. The current leader shall take place on the leader chair in the finish area. Please stay there until the new leader will come to the leader chair.

11.12 Cool down and team zones

For the finals, the athletes will receive a cool-down map in the team zone. Cooling down is only allowed in the team zone and the area indicated on the cool-down map.

In Middle qualification cooling down is only allowed in the arena, the team zone and the team parking (see arena map in section 12.4).

Fair play: It is strictly forbidden for team members to re-enter the competition area until the embargoed area is lifted. Please stay inside the team zone or the area marked on the cool-down map.

The team zone will be equipped with tents and toilets. Own team tents will be allowed in the team zones at the finish. Be prepared that team tents have to be put up on hard ground.

11.13 Abandoning a race

Athletes who are forced to abandon a race must report to the finish staff and hand in their competition maps. A retiring athlete may not influence any other competitor, see also the WOC Fairness rules listed out in section 9.10.

11.14 Media controls

Athletes may meet TV staff or journalists/photographers near control points, not marked in the control description. All controls are also guarded by the organiser.

11.15 Complaints and Protests

Any complaints must be made in writing and given to the Event Director or handed in at the Event Office. Complaints concerning results must be made no later than 15 minutes after the full preliminary results have been announced by the Speaker. Use the IOF complaint form provided at the Event Office. A protest can be made against the organizer's decision about a complaint. The protest fee of EUR 50.00 shall be paid in cash to the IOF Senior Event Adviser SEA. The fee will be returned if the protest is accepted by the jury. When a protest is signed by more than one Federation, each Federation shall pay the protest fee.

Any protest must be made in writing to a member of the Jury no later than 15 minutes after the organizer has announced the decision about the complaint.

11.16 Jury

IOF has appointed the following jury members for WOC 2019.

Name	Nation	Middle distance qualification	Long distance	Middle distance final	Relay
Helge Lang Pedersen	DEN	x	x	x	x
David Rosen	GBR	x	x	x	x
Andre Schoepfer	SUI	x	x	x	x
Cathy McComb	AUS	x	x	x	
Peter Molnar	HUN	x	x		
Carl Göran Strutz	SWE			x	x
Aron Less	HUN				x

11.17 Ceremonies

Opening ceremony: The opening ceremony of WOC 2019 will take place on Monday, 12 August, 19:00 at Sarpborg Town Square. Please be at the Arena no later than 18:40 for viewing opening ceremony. WOC2019 encourage all nations to participate with a full team as we expect many spectators. Athletes **shall** wear their team uniform. Flags of all countries will be brought in the Arena by one athlete of the federation. The name of the person to carry the flag has to be provided in the Event Office at accreditation, as this name will be announced during the opening ceremony.

Flower ceremonies: There will be a flower ceremony in the Mørk arena after each final race. The flower ceremonies will be as soon as the results are official for athletes in 1st – 3rd places. There will be an announcement by the speaker. For a flower ceremony, the athletes and teams are expected to be behind the podium 5 minutes prior to the beginning of the ceremony. Please note that TV broadcast from the event ends with the flower ceremony.

Prize giving ceremonies: The prize-giving ceremonies for the individual competitions will take place at Sarpsborg Town Square, while the prize-giving ceremony for the relay will take place at the arena at Mørk. Athletes/teams in 1st – 6th place shall be present behind the podium 10 minutes prior to the beginning of the respective ceremony in their official team uniform. No national flags, signs, sunglasses, hats, headbands, drinking bottles, mobile phones and other such items are allowed on the stage. Final instructions to the participants will be given prior to the ceremony on site. For the prize giving ceremony at Sarpsborg Town Square WOC2019 will provide transport from Arena Mørk for the prize winners. Information about this will be provided directly to the involved teams at the arena.

Closing ceremony: WOC closing ceremony will be held at the Mørk arena together with the relay prize-giving ceremony. During the closing ceremony the IOF flag will be lowered and handed over to the organisers of WOC 2020 in Denmark followed by closing speeches.

All WOC 2019 gold medallists are asked to step once more onto the podium. We kindly ask team officials to make certain that their teams participate in the ceremony and that the gold medallists join the ceremony with their medals.

12 Event information

12.1 Maps and terrain

Race	Map name	Scale / Contour interval	Mapper	Course planners
Long distance	Mørk langdistanse	1:15'000 / 5m	Kristen Treekrem	Tom A. Karlsen and Unni Strand Karlsen
Middle distance qualification	Knatterudfjellet	1:10'000 / 5m	Kristen Treekrem	Tormod Jensen
Middle distance final	Mørk mellom	1:10'000 / 5m	Kristen Treekrem	Tormod Jensen
Relay	Mørk stafett	1:10'000 / 5m	Kristen Treekrem	Erik Sandbæk and Morten Johansen

Maps are drawn according to the International Specification for Orienteering maps (ISOM 2017-2). All competition maps were revised in June 2019. Maps are off-set printed on paper and will be handed out in sealed plastic bags and labelled with the bib number.

A small number of special, manmade objects (ISOM 530 and 531) can be found on the maps. 530 (black circle) is used for children's playhouse or similar and 531 (black cross) is used for car wreck or similar.

Out-of-bounds areas (ISOM 709, purple hatching) are marked clearly on the map and, if necessary, also in the terrain with IOF tape. It is strictly forbidden to enter these areas. If a wide gap between out-of-bound areas is clearly visible on the map it is allowed to pass, see figure where running between the out-of-bound areas is allowed. Running is forbidden along the west side of the stream. Running is allowed along the east side of the stream and on the semi-open land in south-east.

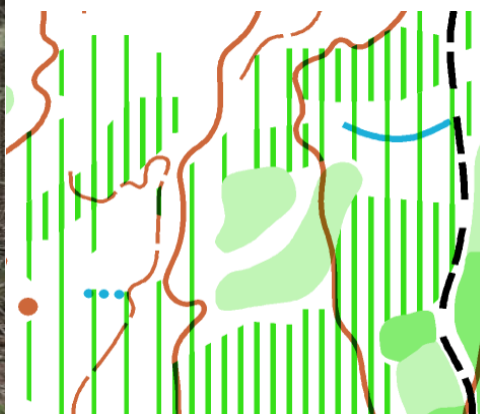


Private areas (ISOM 520) are out-of-bound, entering is forbidden. Where the border is not clearly visible in the terrain, it is marked with IOF tape. This is not marked on the map. It is possible to run through the private (olive) area if there is a continuous and not interrupted road or path passing through.

Terrain Knatterudfjellet: Typical glacial relief with hills running north south. Relatively steep and detailed hillsides, with a total height difference of about 50 metres. Dry hill tops with open pine forest which has good visibility and runnability. The valleys are denser with spruce and mixed vegetation and some marshes. There are some small, logged areas.

Terrain Mørk: The terrain is undulating and detailed, with relatively small height differences in the eastern part and some higher hills in the western part. Total height differences about 60 m. Mostly good runnability and medium visibility. In some parts the ground is covered with relatively high heather. Pine forest on the hill tops and spruce or mixed vegetation on the lower parts.

Many signs of logging work (ISOM 407 / 409) spread around in the terrain. The following link to the “sneak-peak of the terrain” (www.woc2019.no/en/news/144-a-sneak-peak-on-the-woc-2019-map-and-terrain → see 8. “Tegner kart til VM i orienteering”) provides a video illustrating some of this area. See also photo and map example below.



Otherwise very few man-made features. Relatively few and fairly dry marshes.

2 creeks are crossing the terrain. The creeks can be crossed everywhere (on own risk), but the map shows where it is most suitable. In addition, we have built some bridges (shown by purple passage symbol) to simplify the crossings (see photos below).



During the competitions a golf course will be crossed. The putting greens are not mapped but are marked in the terrain as out-of-bound using IOF tape.

12.2 Model event

Date: **Monday 12.** of August 10:00 to 14:00

GPS Address is: Motorsportveien 180, 1890 Rakkestad, Norway

GPS coordinates Rv22 road junction: 59.360272, 11.278115

Map: «Rudskogen», Scale/Contours: 1:10 000 / 15 000 / 5 m, Issued: 2016, revised 2019 according to ISOM 2017-2. Mapmaker: Kristen Treakrem.

Map 2016 version: woc2019.no/files/training/Rudskogen_2016.jpg Note that this map is larger than the Model-Event map.

Model events will provide relevant examples of cartography, terrain and control descriptions. Model event maps will be handed out at the time of accreditation. The controls at the model events will be set up only during the scheduled time listed. The controls are marked with orienteering flags only, and no codes or Touch-free punching units. It is allowed to visit Model event areas before the scheduled times; however, the flags may not yet be in the terrain. There will be some toilets at the parking.

The hill sizes and density of details are about the same in the Model terrain as in the competition terrains. The type of forest is also about the same (mostly spruce and pine forest). In general, the Model event terrain is a bit more runnable than the competition terrains of the finals. This is due to the lack of (high) heather and logging in the Model event terrain.

12.3 Technical Model event

Date: **Monday 12.** of August 13:00 to 14:30

GPS address: Østtorpveien, 1730 Ise, Norway

Marked from coordinates: 59.343047, 11.271166

Parking: at Arena Knatterudfjellet

During the time frame of the technical model event all team members are allowed to access the arena, including the finish of the Middle qualification. At 14:45 all teams are obligated to leave the arena.

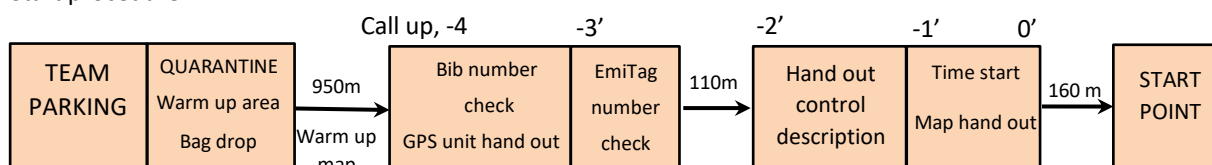
The technical model will show the start procedure, the Emit Touch-free punching system, control setup, taped out of bound area, refreshment control, and the finish procedure. Runners will have the possibility to test the equipment and walk/run the distance from the last control to the finish. Bring your emiTags for testing the punching.

Arena-map: See arena map Knatterudfjellet in section 0.

12.4 Middle distance qualification

Date:	Tuesday 13. August
Venue, arena	Knatterudfjellet, Coordinates: 59.343047, 11.271166
Schedule:	The parking opens at 08:20
Parking:	Team parking is marked from the road junction of Rv22 to Skjebergdal/ Børtevang (Coordinates: 59.300393, 11.220435). Please follow the signs and instructions. Maximum driving distance is 6 km. The parking space is limited, therefore only one car per team can park. One parking permission is distributed in the team bag. Distance from the parking to the quarantine is 300 m-500 m. All other cars can stop near the quarantine entrance to drop off passengers. Thereafter the cars shall leave the quarantine and be parked at the team parking at the arena Knatterudfjellet. From the parking entrance shuttle transport (every 10') will transport drivers back to the quarantine.
Quarantine:	The quarantine offers tents, a warmup area, toilets and water. Team tents are allowed.
Check-in time:	08:30 – 09:40 for the quarantine.
Warmup map:	Handed out at quarantine.
Pre-start:	950 m from the quarantine marked in the terrain and on the warmup map. Be aware that there can be a lot of insects at the pre-start.

Start procedure



Start: The maps will be placed face down on a table next to the start line. The bib number will be visible.

Bags & warmup clothing: Athlete's bags, marked with bib number can be left at the bag drop in the quarantine. There will be sticky labels for marking bags. Organisers will transport them to the team zone at the Arena. Warmup clothing will be brought from the pre-start to the team zone after the last athlete has started.

Transport: Team officials will reach the arena with their own car driving back to the main road and following the signs. Team officials without transport will reach the arena using the shuttle transport departing at the bag drop. It has to be accounted for some waiting time. It is strictly forbidden to walk to the arena. Please note that once leaving the quarantine nobody is allowed to go back into the quarantine.

Arena passage: There is no arena passage.

Coaching zone: The coaching zone is close to last control.

Finish Team officials and athletes having finished their race are not allowed to go back to the competition area. Cool-down is possible within the arena, the team zone and the team parking, see arena map below (no cool down map will be provided).

Map: Knatterudfjellet, 1:10.000, 5m. Based on LIDAR data, issued 06/2019.

Course details

	Women	Men
First start	10:00	10:01
Start interval	2 min	2 min
Course length	3.9 km	4.2 km
Total climb	160 m	190 m
Number of controls	13	14
Number of refreshments	0	0
Winning time	25 min	25 min
Maximum time	2 hours	2 hours
Control description size	112 x 53 mm	118 x 53 mm

Info: After the Middle distance qualification the spectator race will use the same terrain. Some control stands are thus equipped with ordinary emit punching units in addition to the touch free units. Runners may encounter spectator controls not equipped with touch free units.

Arena-map: See arena map Knatterudfjellet in section 0.

12.5 Long distance

Date: Wednesday 14. August

Venue, arena Mørk, Coordinates: 59.530413, 11.001057

Schedule: The parking opens at 08:45

Parking: Parking for the Quarantine 1 is at Spydeberg skole (59.596008, 11.068275). Please follow the signs and instructions. Distance from the parking to the quarantine is up to 300 m.

Quarantine 1: The Quarantine 1 is located indoor at Spydeberg skole and opens at 08:55. All athletes have to check in before 10:20. The quarantine offers a warmup area, toilets and water. Team tents are allowed.
Quarantine 2 is reached by shuttle transport and offers a tent, toilets, water and warmup possibilities. Team tents are allowed. It is not allowed to return from Quarantine 2 to Quarantine 1.

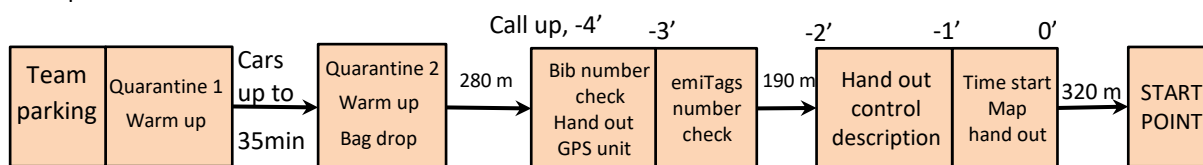
Check-in time: 08:55 – 10:20 in Quarantine 1

Shuttle Transport: Estimate up to 35 minutes to reach Quarantine 2. Departure every 10 minutes (00, 10, 20,) from the marked taxi lane at Quarantine 1. If there are too many persons for a scheduled transport, athletes with earlier start time will have preference.

Warmup maps: The warmup maps are handed out at the entrance of the respective quarantine.

Pre-start: 280 m from the Quarantine 2 marked in the terrain and on the warmup map. Be aware that there can be a lot of insects at the pre-start.

Start procedure



Start: The maps will be placed face down on a table next to the start line. The bib number will be visible.

Bags & warmup clothing: Athlete’s bags, marked with bib number can be left at the bag drop in the Quarantine 2. There will be sticky labels for marking bags. Organisers will transport them to the team zone at the arena. Warmup clothing will be brought from the pre-start to the Team Zone.

Transport: Team officials will reach the arena by taking the shuttle transport from Quarantine 2 to the arena. Some waiting time has to be accounted. Team officials that wants to leave the quarantine 1 and go directly to the arena by their own car must follow the road instructions in section 3.3.

Arena passage: There is one arena passage in the last third of the courses.

Coaching zone: The coaching zones are located at the arena passage 185 meters after the spectator control and close to the last control.

Finish: Team officials and athletes having finished their race are not allowed to go back to the competition area. Cool-down is possible within the area indicated on the cool down map.

Map: Mørk langdistanse, 1:15’000, 5 m. Based on LIDAR data, issued 06/2019.

Course details

	Women	Men
First start	13:14	10:24
Start interval	3 min	3 min
Course length	11,7 km	16,6 km
Total climb	300 m	530 m
Number of controls	21	26
Number of refreshments	4	5
Winning time	80 min	98 min
Maximum time	3 hours	4 hours
Control description size	210 x 53 mm	180 x 53 mm

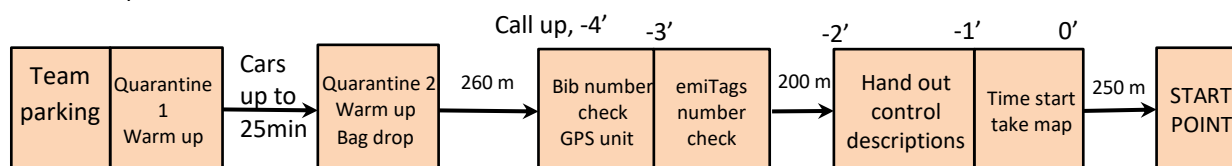
Course lengths includes 800 m taped route.

Arena-map: See arena map Mørk in section 12.9.

12.6 Middle distance final

Date:	Friday 16. August
Venue, arena	Mørk, Coordinates: 59.530413, 11.001057
Schedule:	The parking opens at 11:50
Parking:	Parking for the Quarantine 1 is at Spydeberg skole (59.596008, 11.068275). Please follow the signs and instructions. Distance from the parking to the quarantine is up to 300 m.
Check-in time:	12:00 – 13:10
Quarantine 1	Quarantine 1 is located indoor at Spydeberg skole and opens at 12:00. All athletes have to check in before 13:10. The quarantine offers a warmup area, toilets and water. Team tents are allowed. Quarantine 2 is reached by shuttle transport and offers a tent, toilets, water and warmup possibilities. Team tents are allowed. It is not allowed to return from Quarantine 2 to Quarantine 1.
Shuttle Transport	Estimate up to 25 minutes to reach Quarantine 2. Departure every 10 minutes (00, 10, 20,) from the marked taxi lane at Quarantine 1. If there are too many persons for a scheduled transport, athletes with earlier start time will have preference.
Warmup map:	The warmup maps are handed out at the entrance of the respective quarantine.
Pre-start:	260 m from the quarantine marked in the terrain and on the warmup map. Be aware that there can be a lot of insects at the pre-start.

Start procedure



Start: The maps will be placed face down on a table next to the start line. The bib number will be visible.

Bags & warmup clothing: Athlete's bags, marked with bib number can be left at the bag drop in the quarantine 2. There will be sticky labels for marking bags. Organisers will transport them to the team zone at the Arena. Warmup clothing will be brought from the pre-start to the team zone after the last athlete has started.

Transport: Team officials will reach the arena by taking the shuttle transport from Quarantine 2 to the arena. Some waiting time has to be accounted. Team officials that wants to leave the Quarantine 1 and go direct to the arena by their own car has to follow the road instructions in section 3.3.

Arena passage: There is one arena passage in the last quarter of the courses.

Coaching zone: The coaching zones are located at the arena passage 80 meters after the spectator control and close to the last control.

Finish: Team officials and athletes having finished their race are not allowed to go back to the competition area. Cool-down is possible within the cool down map.

Map: Mørk mellom, 1:10'000, 5 m. Based on LIDAR data, issued 06/2019.

Course details

	Women	Men
First start	13:28	15:45
Start interval	2 min	2 min
Course length	5.5 km	6.1 km
Total climb	225 m	255 m
Number of controls	20	23
Number of refreshments	1	1
Winning time	35 min	35 min
Maximum time	2 hours	2 hours
Control description size	163 x 53 mm	180 x 53 mm

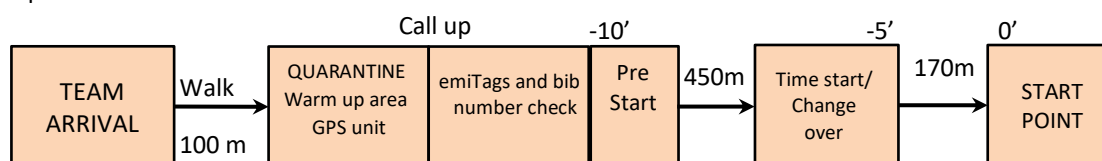
Course lengths includes 790 m taped route.

Arena-map: See arena map Mørk in section 12.9.

12.7 Relay

- Date:** Saturday 17 August
- Venue, arena:** Mørk, Coordinates: 59.530413, 11.001057
- Schedule:** The parking opens at 12:00
- Parking:** Team parking south of Mørk arena. See section 3.3 for recommended routes. Distance from the parking to the quarantine is up to 600 m. For heavy team equipment we offer a transport from the parking to the entrance of the team zone and back.
- Quarantine:** The quarantine is in tents close to the arena. There will be toilets, water and a display showing the live results. At the call up GPS units will be handed out. The runners are responsible of being there at the right time.
- Check-in time:** 14:50 – 16:00 in the quarantine.
- Shuttle Transport:** No shuttle transport.
- Warmup map:** The warmup maps are handed out at the entrance of the quarantine.
- Pre-start:** Call up at the quarantine, north of the quarantine-tent (before crossing the road). Runners are then guided down to the waiting area behind the video screen, 450 meters.

Start procedure:



First leg runners are called up at the pre-start point 10 minutes before the start. They are then guided to the start line where the rolled map will be handed out. To open the map before the start signal is not allowed. The arena speaker will give the start

commands. The arena passage ends at the same location where the start triangle is printed. Please make sure you complete the loops in the correct order.

2nd - 3th leg runners will be called 10 minutes before the arrival of the first team and will then be escorted to the changeover area, where a tent, water, a toilet and a live result monitor are provided. When entered into the waiting area athletes cannot go back to the quarantine.

Changeover procedure: The incoming runner will:

- 1) Cross the finish line
- 2) Return your map
- 3) Continue to the map board
- 4) Collect the map marked with bib number
- 5) Hand over the rolled map over the board to the next runner.

It is the competitor's responsibility to take the correct map. Teams running with a wrong map will be disqualified at the next change-over

A mass start for 2nd and 3rd leg runners of slower teams may take place if needed at approximately 15:40 for women and 19:55 for men. The exact time will be announced well in advance in the changeover area.

Bags & warmup clothing: Athlete's bags, marked with bib number can be left at the bag drop in the quarantine. There will be sticky labels for marking bags. Organisers will transport them to the team zone at the Arena. Warmup clothing will be brought from the changeover area to the team zone.

Transport: Team officials will reach the arena by walking from the team parking.

Arena passage: There is one arena passage in the first third of the courses.

Coaching zone: The coaching zones are located at the arena 100 meters after the spectator control and close to the last control.

Finish: Team officials and athletes having finished their race are not allowed to go back to the competition area. Cool-down is possible within the cool down map.

Map: Mørk stafett, 1:10'000, 5 m. Based on LIDAR data, issued 06/2019.

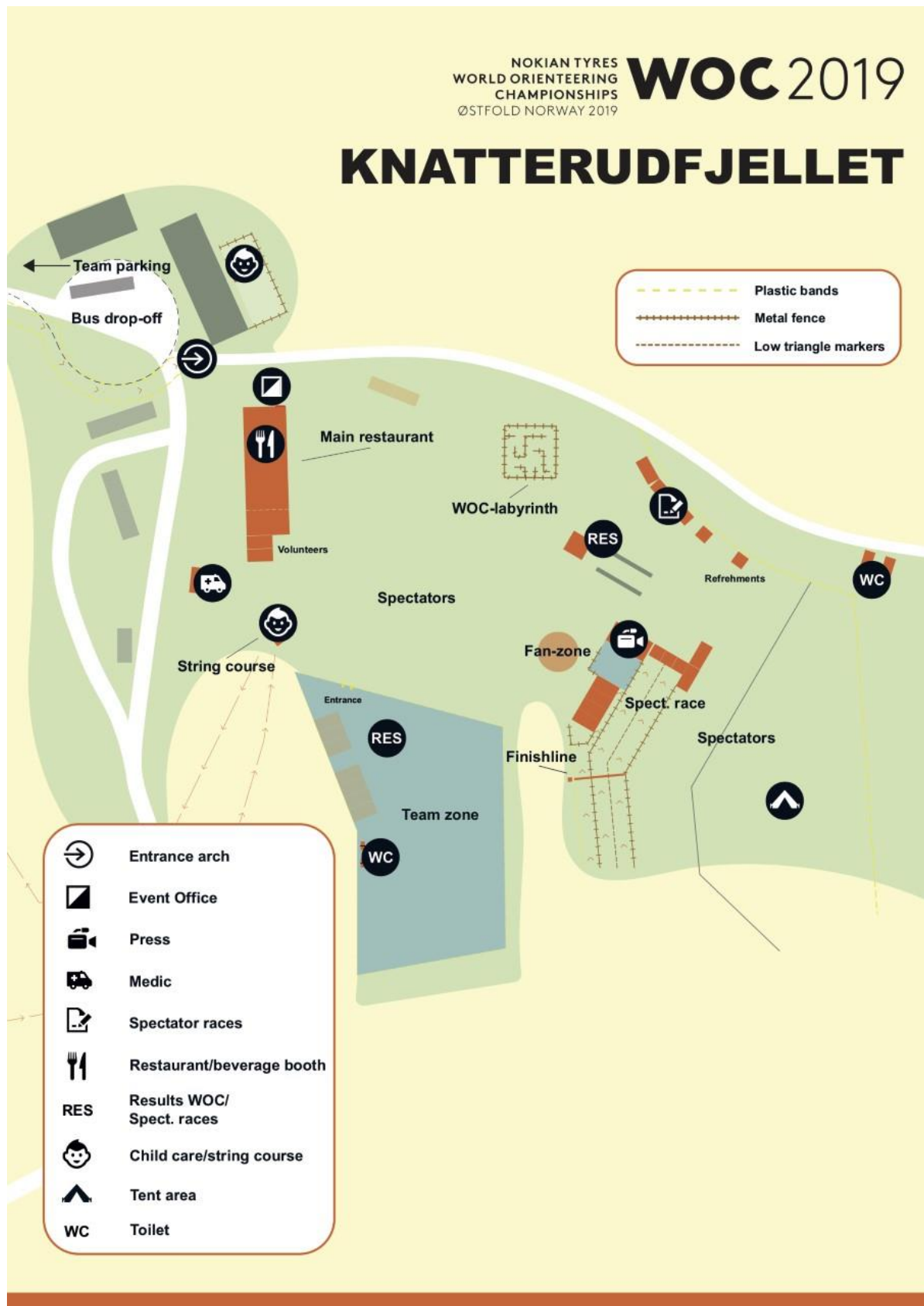
Course details

	Women	Men
First start	16:20	18:30
Course length (km)	4.8 /4.8/5.1	6.0/6.0/6.5
Total climb	155m	195m
Number of controls	12	15-16
Number of refreshments	1	1
Winning time (min)	31/31/33	32/32/35
Maximum time	4.5 hours	4.5 hours

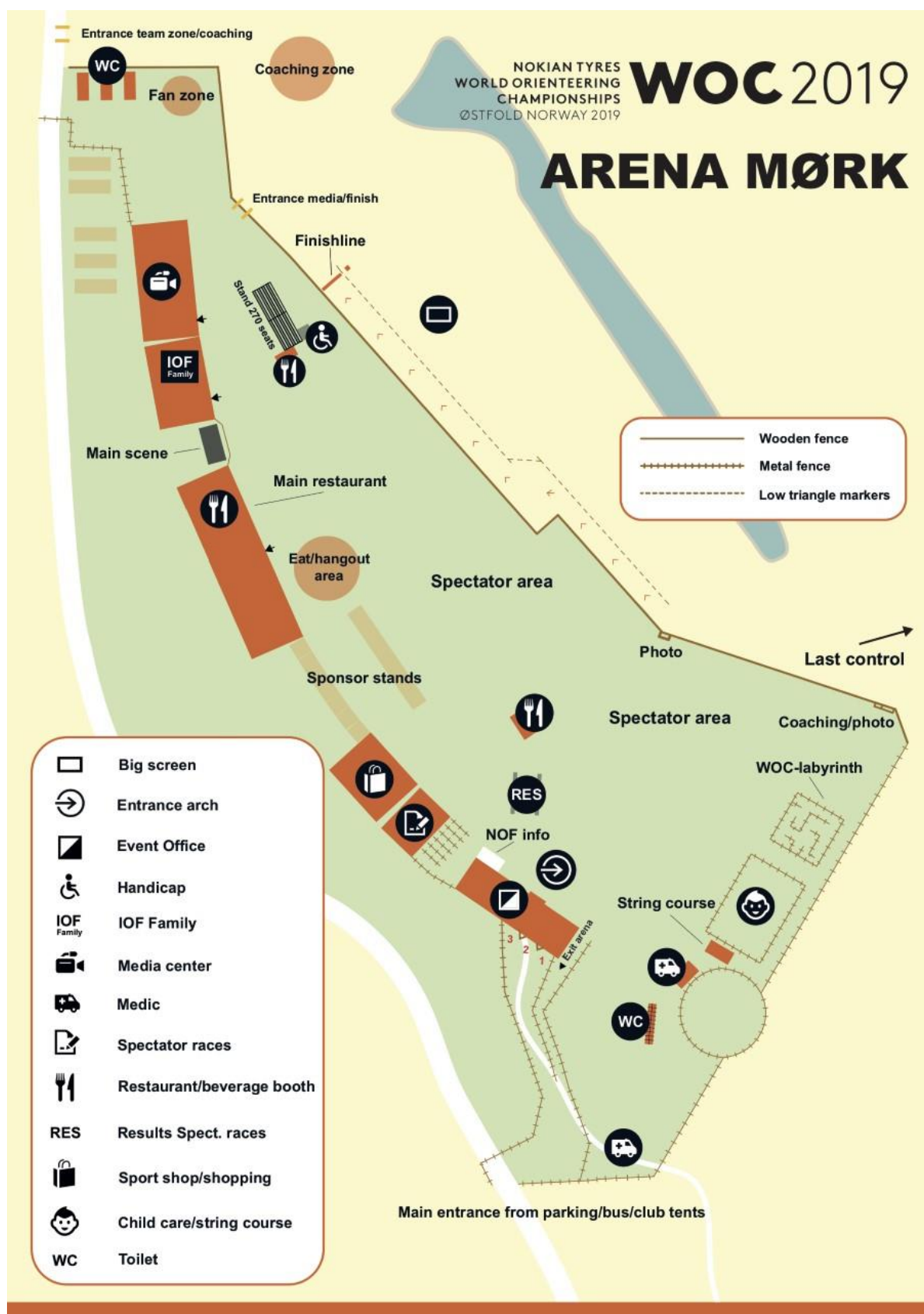
Cool-down: Cool-down is possible within the area indicated on the cool down map.

Arena-map: See arena map Mørk in section 12.9.

12.8 Arena map Knatterudfjellet



12.9 Arena map Mørk



13 Spectator races

13.1 Spectator race for WOC athletes

WOC athletes not competing in the WOC competition are allowed to visit the WOC arena as a spectator during the competition. Furthermore, they are allowed to compete in the WOC spectator race. Please follow strictly the guidelines in the directives for WOC spectators (to be published) how to travel and access the arena.

There will be a number of reserved start times in the classes D21E, H21E, and Open courses for WOC athletes want to run in the spectator races. These start times will be available on a first come, first served principle at the WOC spectator race office in the arena (direct-enter desk). Athletes without their own Emit punching card can rent it on site.

13.2 General info – spectator races

Bring your club and family to WOC 2019: Test the unique WOC terrain and have some amazing experiences. Run one spectator race or run all six of them. Run in the regular classes or run in the open classes. At the arenas you can follow the WOC competitions on the big screen, enjoy a rich variety of food & drinks for sale, as well as a shopping- and activity area. The children can try our kids' course, the maze, punching courses and children's park. We promise the best WOC experience you can wish for: **so sign up now!**

- Bus transport from several places within Sarpsborg to/from all WOC arenas.
- Car parking close to all of the arenas.
- Spectator races next to the WOC arenas.
- A designated camping area close to Sarpsborg Stadium city centre.
- We are happy to assist clubs in booking accommodation
 - Contact person for clubs: Finn Henry Lillestrand
 - Phone: +47 993 80 703, E-mail: fhillestrand@gmail.com

Program Spectator races

Date	Ordinary Start times	Event/Race	Location
12.08	16:30 – 18:00	Sprint	Sarpsborg square
13.08	12:30 – 15:00	Middle distance	Arena Knatterudfjellet
14.08.	10:30 – 13:00	Middle distance	Arena Mørk
15.08.	10:00 – 12:30	Middle distance	Kongsten, Fredrikstad
16.08	11:00 – 13:30	Middle distance,	Arena Mørk
17.08	12:30 – 15:00	Long distance	Arena Mørk



**Eidsberg
Sparebank**
Siden 1848



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