

NAOC 2018 COC 2018

Whitehorse,
Yukon
August 17-24
Bulletin 2



www.NAOC2018.ca

NAOC2018

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Organizing Committee

Orienteering Canada (OC), on behalf of the International Orienteering Federation (IOF), welcomes all orienteers and supporters to the North American Orienteering Championships (NAOCs) and the Canadian Orienteering Championships (COCs). These events are organized by members of Yukon Orienteering Association (YOA), Greater Vancouver Orienteering Club (GVOC), Foothills Wanders Orienteering Club (FWOC), and SMRT-Popups.

IOF Senior Event Advisor	Unni Strand Karlsen	
	NAOC	COC
Chair	Sabine Schweiger	
Race Director	Afan Jones	Charlotte McNaughton/Jim Webster
Treasurer	Ross Burnett	
Mapping Coordination	Afan Jones	
Registrar	Erik Blake/Beth Hawkings	
Communications	Wendy Nixon/SMRT-Popups	
Website	Ryan Kelly	
Start	Wendy Nixon/Grant Abbott	Robyn Rennie/Marsha Fehr
Finish/Results	Erik Blake/Beth Hawkings	
Equipment	Bob Sagar/SMRT-Popups	
Safety and First Aid	Craig Brooks	
Awards/Snacks	SMRT-Popups	
Banquet	SMRT-Popups	
Logistics	Sabine Schweiger/SMRT-Popups	
Volunteer data base	SMRT-Popups	
Sass Peepre Camp	Kitty Jones/Jennifer MacKeigan	
Event	Course Planner	Course Controller
NAOC – Long – WRE	Ross Burnett	Philippa McNeil
NAOC Middle – WRE	Barbara Scheck	John Rance
NAOC/COC Sprint – WRE	Brent Langbakk	Erik Blake
NAOC Relay	Forest Pearson	Adrian Zissos*/Bryan Chubb
COC Long	Marg Ellis	Adrian Zissos*/Don Bayly
COC Middle	Marion Owen	Brian Ellis
HPP Fundraiser	Bruce McLean	HPP Committee
Model Event	Darren Holcombe	Afan Jones

*With sorrow, we lost Adrian unexpectedly on April 19, 2018.

Jury Members

NAOC Events

- Stefan Bergstrom, Ottawa Orienteering Club, Canada
- Rick Breseman, Cascade Orienteering Club, USA
- Marquita Gelderman, North West, New Zealand
- Don Riddle, Edmonton Overlanders Orienteering Club, Canada
- Blair Trewin, Yarra Valley Orienteering Club, Australia

These are the nominated jury members. For each event, 3 jury members are appointed. At least one of the members must come from outside Canada.

COC Events

- TBC

Landowners

The NAOC and COC events are held within the Traditional Territories of:

- Kwanlin Dün First Nation
- Ta'an Kwach'an First Nation, and
- Carcross Tagish First Nation.

The organizers are extremely grateful to the following for allowing orienteers access to their land:

- Croucher Creek – Kwanlin Dün First Nation
- Biathlon – Biathlon Yukon
- Carcross – Carcross Tagish First Nation, White Pass & Yukon Route
- Chadburn Lake – City of Whitehorse

Possession of the map does not confer rights to access the land after the Event. YOA has received special permissions to cross some properties.

Information and Contacts

Competitors are encouraged to monitor www.NAOC2018.ca for start lists, results, GPS tracks, maps, and updates. The organizers will also post notices and updates at each Event Centre.

Please email naoc2018registrar@icefield.yk.ca with requests for information.

Phone number of key officials during the event:

- NAOC
 - Sabine Schweiger +1 867 689 1364
 - Erik Blake + 1 867 334 8574
 - Afan Jones + 1 867 335 2287
 - Craig Brooks Safety Chief +1 867 689 1064
- COC
 - Charlotte MacNaughton
 - Jim Webster

Event Schedule

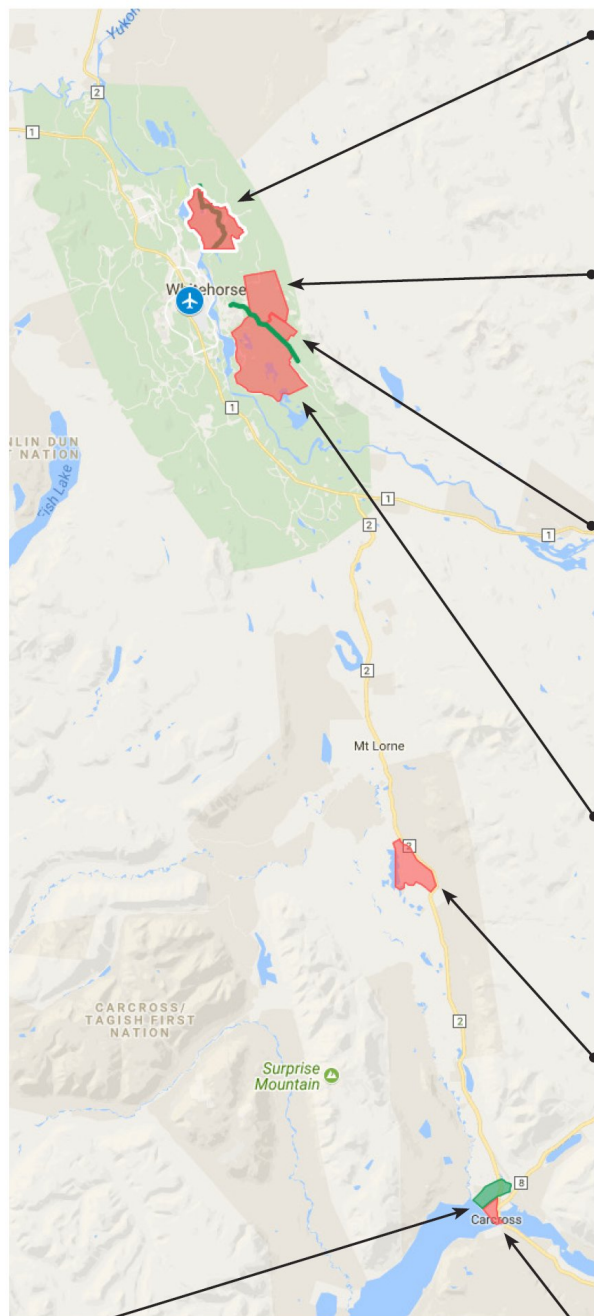
Detailed Schedule for the Orienteering and Social Events taking place August 15-24, 2018

Note: Times are subject to change depending on final participation numbers

Date	Time	What	Where
Wednesday August 15	9:00	Sass Peepre Camp starts	Mt. McIntyre Rec. Centre
Thursday August 16	10:00 - 14:00 17:00	Registration Package Pick-up Sass Peepre Camp ends	Sport Yukon Boardroom Mt. McIntyre Rec. Centre
Friday August 17	10:00 - 14:00 10:00 10:30 & 12:00 16:00	Registration Package Pick-up Model Event first start Bear Aware Talk - on Model map Course Closure	Sport Yukon Boardroom Grey Mt. Road
Saturday August 18	08:00 - 15:00 10:00 13:30 16:30 19:00 - 20:30	Event Centre Open NAOC Long first start NAOC Long last start Course Closure NAOC Opening Ceremonies NAOC Long Medal Ceremony Dessert Potluck	Croucher Creek Arena Shipyards Park
Sunday August 19	9:00 - 14:00 10:00 10:00 13:00 15:00 19:00 19:30 19:30	Event Centre Open Deadline for submitting National Relay Teams NAOC Middle first start NAOC Middle last start Course Closure NAOC Middle Medal Ceremony Movie - Shift Downtown Walking Tour	Lewes Lake Arena The Wharf Baked Café Downtown Whitehorse
Monday August 20	9:00 - 13:00 10:00 10:10 10:30-12:00 12:00 13:30 13:30 18:00 - 21:00	Event Centre Open NAOC National Team Relay mass start NAOC Club Relay mass start Youth orienteering event Relay mass start for all remaining runners Course Closure Tribute to Adrian Zissos NAOC Relay Medal Ceremony Banquet and HPP Silent Auction	Biathlon Centre Arena Coast Convention Centre
Tuesday August 21	9:00 - 14:00 10:00 11:30 12:30 12:30 14:00 - 16:00	Event Centre Open NAOC/COC Sprint first start NAOC/COC Sprint last start Course Closure NAOC/COC Sprint Medal Ceremony NAOC Closing Ceremony HPP Orienteering Event	Carcross Arena
Wednesday August 22	9:00 - 9:45 10:00 - 10:45 11:00 - 11:45 12:00 - 13:00 13:00 - 13:45 14:00 - 14:45 15:00 - 16:30	COC Conference What's Happening in Mapping in Canada? Hosting Championship Events Revitalizing the Canada Cup Series Lunch Overcoming mental fatigue Orienteering Canada's Athlete Development Programme – an Update Orienteering Canada AGM	Coast High Country Inn - Ballroom B
Thursday August 23	9:00 - 14:00 10:00 13:30 16:30 18:00	Event Centre Open COC Long first start COC Long last start Course Closure COC Long Medal Ceremony	Chadburn Lake Arena Shipyards Park
Friday August 24	9:00 - 14:00 10:00 12:30 14:30 14:30	Event Centre Open COC Middle first start COC Middle last start Course Closure COC Middle Medal Ceremony	Chadburn Lake Arena

NAOC/COC Event Locations and Embargo Areas

These areas are embargoed for runners and team officials until the competition is finished. Any attempt to survey or train in the competition terrain is forbidden, unless written permission is obtained from the organizer. Switching to satellite view on the NAOC website will reveal details of boundaries along trails and creeks.



NAOC Long

Event date: Aug 18, 2018

Map: Croucher Creek

Location: 6km NE of downtown Whitehorse, east side of Yukon River

Access: Driving, biking, and running along the Long Lake Road is permitted

NAOC Long Reserve

Event date: Aug 18, 2018

Map: Magnusson

Location: 4km SE of downtown Whitehorse, north of the Grey Mt. Road

Access: Driving, biking, and running along the Grey Mt. Road is permitted

NAOC Relay

Event date: Aug 20, 2018

Map: Magnusson/Biathlon Range

Location: 6km SE of downtown Whitehorse on the Grey Mt. Road

Access: Driving, biking, and running along the Grey Mt. Road is permitted, as is access to the Whitehorse Rifle and Pistol Range

COC Middle and Long

Event date: Aug 23 and 24, 2018

Map: Chadburn Lake

Location: 3km S of downtown Whitehorse between Chadburn Lake Rd and Grey Mt. Road

Access: Driving, biking, and running along Grey Mt. Road and Chadburn Lake Road is permitted

NAOC Middle

Event date: Aug 19, 2018

Map: Lewes Lake South

Location: 50km south of downtown Whitehorse, bordering the South Klondike Highway

Access: Driving, biking, and running along South Klondike highway is permitted, as is travel on the Lewes Lake Road until the White Pass Railway Crossing

HPP Fundraiser

Event date: Aug 21, 2018

Map: Carcross

Location: 70km south of downtown Whitehorse, bordering the South Klondike Highway

Access: No embargo

NAOC/COC Sprint

Event date: Aug 21, 2018

Map: Carcross

Location: 70km south of downtown Whitehorse, bordering the South Klondike Highway

Access: Driving, biking, and running along South Klondike highway is permitted

Event Centre

Package Pick-up – Sport Yukon Boardroom

Address: 4061-4th Avenue

Coordinates: 60.715N, 135.053W

E-mail contact: naoc2018registrar@icefield.yk.ca

On all competition days, package pick-up will be at the Event Centre in the corresponding Event Arena.

Date	Sport Yukon Package Pick-up	In the Event Arena
Thursday August 16	10:00 – 14:00	
Friday August 17	10:00 – 14:00	
Saturday August 18		08:30 – 16:30
Sunday August 19		09:00 – 15:00
Monday August 20		08:30 – 13:30
Tuesday August 21		09:00 – 14:00
Wednesday August 22		closed
Thursday August 23		09:00 – 16:00
Friday August 24		09:00 – 14:30

All competitors must pick up their own registration packages. Packages cannot be picked-up on behalf of others. Waivers must be signed by all competitors 19 and over, and by parent/guardians for all competitors under 19.

Competitors are requested to check their packages for accuracy and completeness – banquet tickets, bibs, classes and events. Pre-ordered technical shirts will be distributed at the Event Centre. Extra shirts are not available – if the size you ordered is incorrect, you are welcome to post your shirt for sale or exchange on the NAOC notice board.

At package pick-up competitor accounts will be settled:

- Any money owing will need to be paid in cash or by cheque drawn on a Canadian bank
- Any refunds will be issued in Canadian cash
- The Event Centre will have a Lost and Found, including competition maps not collected post-race.

Changes to Entries and Fees

There may be a fee associated with changes. We will only accept Canadian cash, or a cheque drawn from a Canadian Bank. No Interac, e-transfer or credit cards are accepted. Automatic teller machines are located in Whitehorse - there will be no ATM machines at the Event Arenas.

The Package Pick-up and Event Centre will have forms for all changes with the associated fee:

- Competitor details (Name, club, federation) - \$0.00
- Change SI/SIAC card number - \$0.00
- Competition class change per event – subject to availability - \$20.00

- Replacement bib - \$10
- Lost rental sticks - \$50 CDN for regular SI stick and \$100 CDN for SIAC.

Media and VIP

All media are welcome to attend NAOC2018. Media are requested to present themselves at the Event Centre in the Arena for registration and orientation.

Orienteering Merchandise

The O-Store (<https://www.o-store.ca/>) will be at both the North American and Canadian Championships. The O-Store carries a full range of orienteering equipment for both individuals and clubs: compasses, SPORTident timing sticks, control description holders, magnifying eye glasses, gaiters, clothing and shoes, books, gifts and knick-knacks and whistles.

SASS Peepre Camp

Registered participants and volunteers in the Sass Peepre camp will receive all the relevant information directly from the camp organizer, Kitty Jones (kittyjones (at) shaw.ca)

Competitor Risk and Responsibility

- Competitors participate in the event at their own risk and must take their own safety precautions. Use common sense. Competitors must sign the event waiver.
- Competitors are responsible for any injuries that might occur to them during the races as well as for any accidents on the way to and from any event.
- To reduce unnecessary pressure on First Aid services at the events, competitors should bring their own basic first aid kit and sports tape. The sun in the Yukon is strong, even on cloudy days. Applying sunscreen is recommended. You may also wish to have insect repellent.
- Open fires and smoking are prohibited in all competition areas.
- Check for Hazards in the event information, on the notice board at the Event Centre, and at the start area.
- Every competitor must carry a whistle while on course. Whistles will be for sale at the package pickup, the Event Centre and the O-store for \$2.00 CDN cash. The recognized distress signal is a series of three short blasts on a whistle. Use your whistle if you need urgent help because of an injury or distress. Pause and listen for reply and repeat to allow helpers to locate you. If you are injured, but still mobile, an alternative might be to make your way to the nearest control so that it is easier to locate you. Competitors are expected to render assistance to anyone who is injured, has blown their whistle, and requires physical assistance. Please give help as needed, and make event officials aware of the issue.
- All maps/control descriptions have a "safety bearing" printed on them. In the event of becoming lost, head in that direction, ideally to a major trail, road or the arena site.
- To avoid initiating unnecessary searches after the event, competitors must download at the download station even if they do not complete their course.
- In the event of an emergency, competitors are required to follow the directions of the Emergency Response personnel.

Clothing and Shoes

There are no special clothing regulations. As Yukon forests can be dense and with numerous dead branches, full body cover is recommended for all forest events. Protective eye-wear can be advantageous.

It is forbidden to use shoes with metal-tipped studs in the NAOC/COC Sprint competition, but permitted for all other events.

Spiked shoes are forbidden in all competitions.

All competitors must carry a whistle for safety purposes. The start crews will check that you have a whistle with you.

Dogs and Drones

Dogs are prohibited from the arena and on-course. Only working dogs are permitted in the arena and on-course.

It is forbidden to fly a drone at all events.

Medical and Emergency

911 is the Canadian emergency number for ambulance, fire and the Royal Canadian Mounted Police (RCMP). Contact an event organizer if you are contacting 911 from an event site. Ideally, have an organizer call, to provide directions. Contact the NAOC/COC Safety Chief for less urgent items.

Cell Service is available at all Whitehorse arenas and at the Carcross sprint. It is NOT available at Lewes Lake (NAOC Middle). GSM phones (such as Rogers Canada) will not work at event sites (but may work in downtown Whitehorse).

St. John Ambulance services will be provided in the Arenas. There are no first aid stations on course. Each competitor and spectator is responsible for their own medical insurance. There is no cost for using St. John Ambulance Service for all competitors and volunteers. St. John are volunteers, so drop by and thank them.

The following are the closest medical facilities:

Facility	Address	GPS coordinates	Phone Number
Whitehorse General Hospital	5 Hospital Rd, Whitehorse, YT Y1A 3H7	60.719N, 135.044W	+1 867 393-8700
Carcross Nursing Station	Austin St, Carcross, YT Y0B 1B0,	60.168N, 134.709W	+1 867 821-4444

If there is a force majeure episode prior to the event (e.g. weather, fire, earthquake or wildlife), details will be posted on www.NAOC2018.ca. If required, the event website will be updated with warnings at:

- noon the day before the event;
- 18:00 the day before the event, and
- 06:00 on the day of the event.

A comprehensive Safety and Emergency Plan is kept at the Event Centre.

Hazards

The Yukon is a wilderness environment, with wild animals such as bears, foxes, coyotes and wolves, and stinging/biting insects. Participants are unlikely to encounter wildlife while orienteering, but it is possible. Information about being in bear country will be distributed with registration. Conservation Officers will provide information about bear awareness at the model event.

If you are allergic to wasps or bee stings, please bring your necessary medication and carry it with you on-course. St. John Ambulance cannot supply or dispense EpiPens, Tylenol, Ibuprofen, Cold Medicine or other “over the counter” or prescription medicine.

There are some plants with thorns. In the Whitehorse area, there are no poisonous plants in terms of skin contact, but there are some poisonous plants if ingested. There are no snakes. First Aid will be on-site at each NAOC/COC event arena.

Washing Facilities, Toilets and Waste

There are no showers or washing facilities at any of the Arenas. All toilets are portable toilets at the locations shown on the Arena maps. Please always use the toilets provided and not the woods and fields. Our relationship with adjacent land owners depends on us being able to keep the woods clean.

Let's keep our Arenas clean! Please use waste sorting stations for all waste – we ask you to separate waste into organics (all food including fruits and vegetables, meat, bread etc; paper napkins, muffin papers BUT no plastics), recycling (plastic cups, cans, bottles) and garbage.

Amenities in the Arena Area

Each arena area will have an Event Centre, a First Aid tent, portable toilets, live results, refreshments for finishing competitors, and a live announcing system. There will be limited shelter for personal clothing/bags. Competitors should come prepared for all types of weather – rain, sun, wind, cold, and heat. The weather can change significantly over the course of a day. There will not be any food or drinks available for purchase – competitors should come prepared with all their own nutritional requirements.

There will be water at all events in the arena, at the start (limited supply) and on some courses (as detailed in the specific event details). Please refill larger personal containers in Whitehorse, and not from the limited event site supply.

On the day of the NAOC/COC Sprint, the arena will be within the town of Carcross, which will be embargoed until the last competitor has completed their course. Carcross has food and drink for purchase.

Busing and Parking

Busing is mandatory for all competitors of the NAOC Long (Saturday August 18) from FH Collins High School on Lewes Boulevard to the Arena Bus Stop on the Long Lake Road. There is no parking at the arena.

For the NAOC Middle, the designated parking is in a gravel pit **50 km south** of downtown Whitehorse (coordinates 60.361N, 134.785W). There will be a mandatory shuttle bus to transport competitors from the parking to the arena bus stop.

In addition, for those that indicated that they will be using the shuttle bus directly from Whitehorse (either in response to the on-line survey or during initial registration through zone 4), school buses have been arranged to transport these competitors from Whitehorse to the arena bus stop. Competitors will have a “B” printed on their bib if they indicated that they will be using the bus – the bib acts as the bus ticket. These competitors can either park in the designated parking in Whitehorse or board a bus at one of the passenger pick-up areas close to the SS Klondike at the south end of downtown. A detailed bus schedule based on start time will be posted

separately on NAOC2018.ca. Approximate bus departure times are detailed in the Course Notes for each event.

Please be patient and respectful of other participants, the bussing volunteers and the drivers.

Boarding the buses will be prioritized by start time. In order to maximize the bus capacity, competitors will be asked to place their O bag on their lap for short trips, or to pile the bags on designated seats for longer trips (NAOC Middle and Sprint). Safety regulations do not permit bags to be placed in the bus aisle, and all passengers must be seated.

Competitors who drive and carpool will park at the designated event parking, and must follow the instructions of the parking personnel. Parking will be either in an off-road gravel parking area, or along one side of a road. Please only park on the designated side of the road, to allow for the clear passage of other vehicles. Vehicles blocking the road may be towed. Please watch for pedestrians walking along the road. If you are looking for a ride or have a ride to offer, there will be a carpooling board at the Event Centre in each areana.

Pedestrians should pay attention to traffic – walk single file and cross roads only when safe to do so.

The NAOC/COC Sprint has a designated crossing point on the South Klondike Highway. Cross only when safe to do so.

Do not leave passports and other valuable items in unattended vehicles.

The Yukon has alcohol restrictions on public consumption and carrying open cans/bottles in vehicles. Seat belt use is mandatory where they are available, and the use of handheld cell phones or other electronic devices (such as GPS) by drivers is prohibited (bluetooth handsfree OK).

Competition Rules

IOF rules will apply for all elite classes at NAOC events. Competitors shall follow the Competition Rules for IOF Foot Orienteering Events (version valid from 1st January 2018) found on the IOF website:

<http://orienteering.org/wpcontent/uploads/2010/12/IOF-Rules-2018-v1.14final.pdf>. Orienteering Canada rules apply for all COC events and non-elite classes at NAOC events. If there is a conflict in the elite classes between IOF and OC rules, IOF rules prevail.

The NAOC/COC event has obtained a rule deviation from the Orienteering Canada Technical Committee regarding protests under Canadian rules. The time limit for submitting a protest at all events is 15 minutes after a decision is rendered on a complaint (following IOF rule 28).

Anti-Doping

Doping is strictly forbidden, and the organizers of NAOC/COC 2018 are dedicated to supporting the anti-doping authorities in their work. Doping controls may be carried out any time during the competition period. Doping tests are always carried out in accordance with the procedures described in the WADA International Standard of testing. The IOF Anti-Doping Code and rules as of 1st January 2015 apply. For the most recent information on anti-doping and the current list of prohibited substances, visit <https://orienteering.org/anti-doping/>.

Athletes who are selected for the doping tests must bring an official identification (with photo) to the doping test area. The athlete should bring along their therapeutic use exemption (TUE) if applicable.

Fair Play

All competitors shall behave with fairness and honesty. Attempts to gain any information related to the courses, beyond that provided by the organizer, is prohibited before and during the competition.

It is not permitted to bring previous orienteering maps of the competition area to the event.

Team officials and spectators are not allowed to enter the competition terrain before and during the competition.

Everyone must follow the routes specified by the organizers to reach the Event Arena, Quarantine, and Start. Competitors are not allowed to re-enter the competition area after they have finished their race and before course closure without the permission of the controller.

At all times, respect local people, private property, fences and walls.

A competitor who breaks any rule, or who benefits from the breaking of any rule, may be disqualified.

GPS and GoPros®

As per IOF Foot O rule 21.4, competitors shall not use or carry telecommunication equipment between entering the start or quarantine area and reaching the finish of a race, unless the equipment has been approved by the organizer prior to the event. In quarantine, any device capable of communication (WiFi or wireless data) must be powered off – disabling communications (e.g. "airplane mode") is not sufficient.

GPS-enabled devices (watches etc.) can be carried provided that they have no map display and are not used for navigation purposes (IOF Foot O Rules 21.4).

There will be no live GPS tracking, but competitors are encouraged to record their routes and upload tracks to RouteGadget on the competition website www.NAOC2018.ca.

It is permitted to use a Go-Pro® or other similar recording device while on course. All such devices must be surrendered to an official at the download station in the finish chute. The devices will be labelled and available for pick-up at the Event Centre after the last competitor has started.

Embargoed Areas

As per the Competition Rules for IOF Foot Orienteering Events, the out-of-bounds areas apply to all NAOC/COC 2018 competitors, team officials, coaches, family members, etc. and other persons who, through their knowledge of the terrain or the events, may influence the result of the NAOC/COC 2018 competitions.

This includes:

- no organized orienteering activities may take place in these areas,
- no training sessions, i.e. running/races, testing routes may take place in these areas,
- no one with potential connection to a team (athletes or others) may visit the embargoed areas, and
- no one may bring an existing map of an embargoed area into the arena or quarantine on the day of the event.

Embargoed areas map: <http://yukonorienteering.ca/naoc2018/embargo.html>

List of Existing Maps of all Competition Terrain

Copies of the most recent versions of the orienteering maps of the embargoed areas are published on the NAOC2018 website: http://yukonorienteering.ca/naoc2018/old_maps.html

The following table shows downloadable maps which the Yukon Orienteering Association has produced in the past which overlap the NAOC/COC 2018 race areas.

Map	NAOC/COC 2018 Area
<ul style="list-style-type: none">• Carcross Desert (2011) (1.9MB, PDF)	Shows part of the Carcross townsite (NAOC/COC Sprint area).
<ul style="list-style-type: none">• Grey Mountain/Magnusson (2002) (2.4MB, PDF)	Shows the Grey Mountain Biathlon Range (NAOC Relay) and part of the Hidden Lakes (COC Middle and COC Long) areas.
1. Lewes Lake (2011) (0.5MB, PDF)	Shows the NAOC Middle area.
2. Lewes Lake (2012) (2.9MB, PDF)	
<ul style="list-style-type: none">• Long Lake (1998) (2.6MB, PDF)• Long Lake (2015) (1.6MB, PDF)	Both show part of the NAOC Long area.
<ul style="list-style-type: none">• Miles Canyon (2002) (1MB, PDF)	Shows part of the Hidden Lakes (COC Middle) and Chadburn Lake (COC Long) areas.

Quarantine

The NAOC Middle and the NAOC/COC Sprint have a pre-race quarantine for all elite competitors. In addition, F15-16 and M15-16 will have a quarantine at the NAOC/COC Sprint.

All competitors must be signed into quarantine by 09:50.

Each quarantine area will have drinking water, shelter, portable toilets, and a warm-up area. Competitors are responsible to bring their own snacks. Bags labeled with the competitor's name may be left at the designated location in quarantine for transport to the Arena Event Centre.

Competitors and coaches are not allowed to visit the Arena before going to the quarantine. It is not permitted to use mobile phones, radios, computers or any other communication devices in the quarantine zone – not even in flight ("airplane") mode. Any telecommunications devices must be powered off. Music players without any built-in wireless connectivity are permitted. Within the quarantine, competitors with headphones may be randomly asked to display their music players for checking. All tents inside the quarantine must stay open so that it is possible to look inside. With the exception of watches, it is strictly forbidden to bring any electronic devices to toilets – regardless if the device is turned on or off.

SIAC sticks for the elite classes in NAOC/COC Sprint will be distributed to competitors when they sign into the Sprint quarantine.

Competitors will be permitted to leave quarantine with sufficient time to reach the T-5 (start time minus 5 minutes) pre-call-up line at the start-grid. Competitors should plan to complete their pre-race warm-up and other preparations in quarantine.

It is the competitor's responsibility to sign-out of quarantine at the appropriate time as follows:

- NAOC Middle – competitor start time minus 15 minutes (allows 10 minutes to reach the T-5 pre-call-up line)
- NAOC/COC Sprint – competitor start time minus 10 minutes (allows 5 minutes to reach the T-5 pre-call-up line)

Competitors must follow the marked route from quarantine to the T-5 pre-call-up area.

Flagging

The NAOC/COC events will use a common system of coloured flagging tape to mark routes:

Marked routes on-course:

- Used to mark for example, the route from the start-line to the start triangle and used to mark a route between controls; marked routes are indicated on the control description: "orange & white" or "orange & yellow" paired flagging tape streamers (colours hung together from vegetation or attached to stakes).

Directional Routes:

- Route from bus/parking to arena: Green flagging tape
- Route from bus/parking to quarantine (NAOC Middle and NAOC/COC Sprint): Light blue flagging tape
- Route from arena to start: Orange flagging tape hanging from vegetation and/or orange pin flags in the ground. NAOC Long and NAOC Middle have two start areas – S2 will have orange flagging (as above) and S1 will have pink flagging tape and/or pink pin flags. The routes have a common exit point from the arena – both colours (orange and pink) will be present until the route splits to the two starts (signs will be placed at the junction listing the Classes by start area).

- Route from quarantine to start (NAOC Middle and NAOC/COC Sprint): Yellow flagging tape

Out-of-bounds will be marked with yellow/black striped barrier tape (7cm/3" wide), or secondarily with red barrier tape.

Complaints and Protests

In accordance with IOF Foot O rules 27 and 28, complaints and protests may be made in writing (in English), using the appropriate forms which are available at the Event Centre. There is no fee to lodge a complaint. Complaints must be handed into the Event Centre within 30 minutes of a competitor finishing their course. Complaints regarding the results shall be made no later than 15 minutes after the publication of the provisional results list. The commentator will announce when the provisional results have been posted, and the deadline for submitting complaints.

The organizer will make a decision and notify the complainant as soon as possible. If the complainant is not satisfied with the organizer's decision, a protest may be lodged. Protests must be delivered in writing to the Event Centre. Forms are available at the Event Centre. There is no fee to lodge a protest.

The NAOC/COC event has obtained a rule deviation from the Orienteering Canada Technical Committee regarding protests under Canadian rules. The time limit for submitting a protest at all events is 15 minutes after a decision is rendered on a complaint (following IOF rule 28).

Start intervals and Maximum Time on Course for all Classes

	Start Interval	Maximum Time on Course
Long Distance	3 minutes	3 hrs
Middle Distance	2 minutes	2 hrs
Sprint	1 minute	50 minutes
Relay	Mass start	Total of all 3 relay legs – 3.5 hrs

If the maximum limit is exceeded, the competitor (or team) will be disqualified.

Punching and Time-keeping

SI punching and time-keeping will be used for all events. Competitors provide their own SI or can rent an SI from the Event Centre. The SI card number that you provided on your entry form has been entered into the computer system, and appears on your number bib. If for any reason you will be using a different SI-card, you must notify the organizers of the new number by completing a change form at the Event Centre (there is no charge for this change).

For the NAOC/COC Sprint, elite competitors must use touch-free SportIdent Air (SIAC) punching system. Other competitors may use SIAC or regular SI. Rental SIAC will be picked up in quarantine (for elite competitors) or at the start area (for all other competitors that pre-ordered a SIAC – no additional SIAC rentals are available).

All rental sticks must be returned to the Event Centre after the last competition, or pay the fee for lost sticks.

Each control is equipped with

- a control flag
- one or more SportIdent (SI) electronic control units
- one manual pin punch attached with a string to the flag
- controls may be equipped with radio results telemetry
- controls may be equipped with video image telemetry

The control code is located on top of the SI unit. The numbers range from 70 to 206 and are underlined.

Where a control has more than one SI unit, the competitor may punch either unit.

Use the manual pin punch only if the SI unit does not function (no beep and no flash). Punch your map in one the reserve boxes marked "R".

For the NAOC/COC Sprint, all controls will operate both with the touch-free SIAC sticks as well as with regular SI sticks.

Time keeping will be recorded to the whole second for all competitions.

Number Bibs

Competitors are assigned one number bib for all the individual events, and will be included in the registration package. Information on the bibs will consist of the competitor's name, class, start times and SI number.

Relay bibs will be assigned to each team, for pick-up at the Event Centre on the day of the relay.

All competitors must wear their assigned number bibs on their shirt front during all competitions. Bibs must be visible in their entirety and not folded or cut. Competitors are encouraged to bring their own safety pins. Safety pins will be available at the Event Centre.

Competitors in the elite categories will receive a second numbered bib (without personal information) to be worn on the back of their shirt for the NAOC/COC Sprint.

Replacement bibs can be obtained from the Event Centre at a cost of \$10.00 CDN.

Start Lists

The start draw is conducted in accordance with IOF Foot O Rule Appendix 12.6.

Start lists will be available on the NAOC2018.ca website and posted daily at the Event Centre, at each start area, and where applicable, in quarantine.

Elite Classes

- For the NAOC Long, Middle and Sprint, competitors in the senior and junior elite categories are divided into two eligibility groups – North American and non-North American. In each NAOC event, the non-eligible group will start first, followed by the eligible group.
- The start list for the NAOC Long will use the world ranking points as of 2018-08-08 to seed the competitors within each eligibility group, with the highest ranked competitor starting last within each group.
- For the NAOC Middle and Sprint, starting times are drawn randomly within each group.
- Junior classes running the same course as the 21E class will be included in the start groups described above, and are eligible for WRE points. This applies to 19-20E for the NAOC Middle, and to 17-18E

and 19-20E for the NAOC/COC Sprint. In addition, North American Juniors running in the NAOC Middle 19-20E are eligible to win the North American personal Middle WOC spot for WOC2019.

- For the COC Long and Middle, elite starting times are drawn randomly with no segregation into groups based on eligibility.

For all other Classes and all events, starting times are drawn randomly within each Class. Organizers may take into consideration requests for split start times and start volunteer requirements.

Competitors in the Open Classes do not have assigned start times. They can proceed to the start area and follow the directions of the start crew. A competitor may only shadow another competitor in an Open Class after they have completed their own course.

Results

Live provisional results will be on display at each Event Arena. Competitors may view results on their own devices such as smart phones, tablets or laptops via a local Wi-Fi network. The official results will be displayed as soon as possible after the event on www.NAOC2018.ca. These will consist of results, split-times, WinSplits and RouteGadget.

A paper copy of the provisional results will be printed and posted in the Event Arena as soon as possible after the last competitor has finished.

Commentary will be supported by feeds from radio controls and, as such, will be 'unofficial' times. Race commentary will provide news and results in English. Experienced commentators who wish to provide additional commentary, including short spells in languages other than English, are requested to register their interest with the Finish team.

Medals and Awards

Each event will have a separate awards ceremony on the day of the event as follows:

Event	Date	Place	Time
NAOC Long – WRE	Saturday August 18	Shipyards Park, Whitehorse	19:00
NAOC Middle – WRE	Sunday August 19	The Wharf, Whitehorse	19:00
NAOC Relay	Monday August 20	Biathlon Relay Arena	13:30*
NAOC/COC Sprint - WRE	Tuesday August 21	Carcross Sprint Arena	12:30*
Björn Kjellström and Future Champions Cups	Tuesday August 21	Carcross Sprint Arena	12:30*
COC Long	Thursday August 23	Shipyards Park, Whitehorse	18:00
COC Middle	Friday August 24	COC Chadburn Arena	14:30*

* approximate start times – contingent on results being finalized.

Medal and Award recipients are requested to gather near the awards podium 10 minutes prior to the awards ceremony.

Eligibility

Medal winners of the North American Championships must be full members of a provincial/territorial/state association representing their IOF Federation, and be passport holders (i.e. citizens) of the country of their federation (Canada or United States). Non-citizen permanent residents are not eligible (IOF rule A11.4).

Medal winners of the Canadian Championships must be full members of a provincial/territorial association; and (a) Canadian citizens; or (b) permanent residents as defined by Citizenship and Immigration Canada.

IOF medals will be awarded to the top three eligible finishers in each of the NAOC individual events for the following Classes: F21E, F19-20E, F17-18E, F15-16, M21E, M19-20E, M17-18E, M15-16, and for National Relay Teams. Diplomas will be awarded to the top 6 eligible competitors in these Classes.

The top three eligible finishers in each of the remaining competitive Classes (excluding S Classes) will receive a NAOC medal.

The top three eligible finishers in each of the COC events in all competitive classes (excluding S Classes) will receive a COC medal.

The first place finisher will receive an award in all competitive Classes, including S Classes, regardless of eligibility.

Live Local Wifi Service

Live results will be displayed in the Arena on TVs, and be available on a live local wifi service.

The wifi network will have a directory with the following documents:

- Bulletin 1 and Bulletin 2
- Map of Embargoed Areas
- Start lists
- Preliminary and Final Results
- IOF Rules and Protocols
- Map legend
- Bus schedules

The wifi URL will be posted in the arena and printed on each competitor's results receipt.

Björn Kjellström and Future Champions Cups

The Björn Kjellström Cup and the Future Champions Cup will be awarded to the North American Senior and Junior National Team (respectively) with the most points accumulated in the NAOC Long, Middle, Sprint and Relay.

Eligibility

Competitors must have full passport-holding citizenship of the country they are representing prior to the start of a race. Competitors must be members in good standing of the national federation they are representing

prior to the start of a race. In case there is a need for last-minute membership (new or renewal), it will be sufficient to give the necessary paperwork and payment to the Event Centre.

Before the competition begins, any competitors who are potentially eligible to represent more than one North American Federation must declare which country they intend to represent. Because this cup is a friendly competition, there will not be a "credentials committee" but protests will be referred to a jury to determine eligibility.

Rules

Individual Events: There are three individual events for both men and women (Sprint, Middle Long). Each is scored separately with points distributed among the top finishers.

Relay: Separate men's and women's relays with 3 individuals on each team. To get points, a team must finish within the time limit (which might be quite tight). No points for DQ or DNF.

Ranking: To determine ranking, non-eligible finishers will be removed. Competitors meeting the eligibility criteria are then ranked from one for the first eligible finisher to 15 for the 15th eligible finisher.

Point Scoring: Points will be awarded to each country using the points tables. For each individual race, only the top three eligible finishers in each Class from each country will receive points. For the 3 person relay, the top two teams in each Class from each country will receive points.

Ties in Ranking: If two competitors tie in a race -and both will receive points - they each receive the average point value of the higher and lower points as if they had not tied. For example, a tie for 4th place (4th = 16 points, 5th = 13 points) results in each competitor receiving 14.5 points. If two competitors tie in a race, but only one will receive points, that competitor receives the points that would have been allotted had the other competitor not been there.

Total Score: The overall score for each country is based on combined scores for men and women, for all 4 races (Sprint, Middle, Long, Relay).

Ties in Total Score: In case of a tie, Canada will retain the BK cup and USA will retain the Future Champions Cup.

Junior/Senior overlap: In situations where junior classes run the same course as the senior classes, juniors are eligible to be scored as both a junior and a senior.

Points Tables:

A Individual Events for BK Cup, W21E and M21E – top three competitors from each country earn points

Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Points	25	22	19	16	13	10	9	8	7	6	5	4	3	2	1

B Individual Events for FC Cup for F17-18E, F19-20E, M17-18E and M19-20E – top three competitors from each country earn points.

Rank	1	2	3	4	5	6	7	8	9	10
Points	15	12	10	8	6	5	4	3	2	1

C Relay Events for BK Cup: F21E, M21E and FC Cup: top two teams from each country earn points.

Rank	1	2	3	4
Points	50	30	20	10

Start Procedure

Every event (except the Relay) has a silent start process. Competitors are requested to respect the quiet zone throughout the start grid, starting at the T-5 (start time minus 5 minutes) pre-call-up. It is the competitor's responsibility to watch for their assigned start time and be on time. The start crew will **not** call out for late/missing starters.

Competitors are responsible for clearing and checking their SI-card. Clear and Check will be located on the marked route to the start at the arena exit, and prior to the T-5 minute pre-call-up line (for technical reasons, there will be no Check unit for the NAOC/COC Sprint).

The clock at the pre-call-up line will display T-5 minutes. An official will check off the competitor name, verify the bib number and confirm that each competitor has a whistle. Competitors without a bib, SI stick, or whistle will not be permitted to start.

At T-3 minutes, an official will check bib number, SI number, and confirm that the SI stick has been cleared.

At T-2 minutes, competitors can pick-up the appropriate loose control description. These will be clearly labelled by Class. Note that control descriptions on the map are symbolic only. Competitors in Classes F10, F11-12, M 10, M11-12, Open1 and Open 2 will have the choice between loose English language control descriptions and loose IOF symbolic control descriptions.

NEW – At T-1 minutes competitors will be sectioned by Class – those in M/F 10, M/F 11-12, M/F 13/14 and M/F 15-16S will proceed in a separate chute to their labelled map boxes with maps facing down. They will write their name on the back of their map and be permitted to flip their map over and review their course. All other Classes will proceed to their appropriate map boxes, write their name on the back of their map, **but leave their map face-down in the box (as usual)**.

The start clock will beep once at T-10 seconds. The start-countdown will be indicated by a series of 6 beeps at -5 to 0 seconds. At the last (long) beep the competitor's race time begins and the competitor can take the map from the map bin. **The competitor is responsible for ensuring that they have the correct map for their Class.**

All competitors **must** follow the marked route to the start point which is indicated by a triangle on the competition map, and by a control stand and flag in the terrain. There is no SI unit at the start flag.

Competitors in the Open categories do not have assigned start times, and must start within the Open start window listed for each event. They proceed to the Open/Late start chute and follow the instructions of the start crew. All competitors in the Open/Late start have a Start unit at the start line that must be punched when crossing the start line.

The Relay has 3 mass starts – 10:00 for National Relay Teams, 10:10 for all Club Relay Teams and 12:00 for all remaining competitors.

Late Start Procedure

Competitors are responsible for clearing and checking their SI-card. Clear and Check will be located on the marked route to the start at the arena exit, and prior to the T-5 minute pre-call-up line.

Competitors arriving at the pre-call-up line more than 2 minutes late must report to the Late Start official and use the late start lane. A late start official will check the competitor's bib, SI number, whistle and cleared SI stick. If possible, the competitor will then be directed into the correct section of the start grid and start normally.

Otherwise, the competitor will continue in the late start lane. Loose control descriptions and the competition map will be handed to the competitor by the official. **It is the competitor's responsibility to check that they have received the correct map and control description.** The competitor will start when told to do so, using a punching Start (IOF Foot O Rule 22.9). The official will also record the actual starting time. Note that for the NAOC/COC Sprint, this Start unit will **NOT** be a touch-free unit. Competitors must insert their SIAC stick into the Start unit.

If upon arrival at the late start line the competitor is less than half the start interval after their assigned start time*, they will be allowed to start immediately. If the competitor arrives more than half the start interval after their assigned start time, they will have to wait until the half start interval after the next starter. This is to ensure that a late-starter does not interfere with, or start too close to, someone on the same course.

The results of competitors who start late will be based on their original, assigned start time (with no time compensation). Only if their lateness is the fault of the organizer will their actual race time be used (IOF Foot O Rule 22.10).

Any competitor who starts late, whether through their own fault or otherwise, should not discuss this with the start officials. Instead, if the competitor believes the organizer is responsible, they should make a complaint at the Event Centre within 30 minutes of finishing the race (see Complaints and Protests).

*E.g. A competitor is late for their assigned start time at 10:20:00, they proceed through the late start lane. If they arrive at the start line before 10:20:30 (Sprint) or 10:21:00 (Middle) or 10:21:30 (Long), they can start immediately (after punching the Start unit). If they arrive later than these sample times at the start line, they will be permitted to start at 10:21:30 (Sprint), 10:23:00 (Middle) or 10:24:30 (Long), after punching the Start unit.

Finish Procedure

The competitors running time will be calculated at the finish line as follows:

- By punching one of the finish units on the finish line (NAOC Long, NAOC Middle, NAOC Relay (legs 1, 2 and 3), NAOC/COC Sprint competitors using regular SI, COC Long and COC Middle)
- By running through the SIAC gate (NAOC/COC Sprint competitors with SIAC stick)

or

- By punching a remote finish unit (only for classes F75, F80, F85, F90, M75, M80, M85, M90, and Open3 on the NAOC/COC Sprint, and M85, M90, F80, F85 and F90 on COC Long and COC Middle).

Upon finishing, competitors hand in their maps and proceed directly to the download station, receive a print-out with splits, and confirmation that all of the controls have been visited in the correct order. If there are any missing punches, the competitor will be directed to the results area for resolution. Go-Pros are labelled and handed in at the download station.

All maps will be collected at all events until after the last start:

- At the remote finish (when it exists); or
- Before the download station in the finish chute.

Refreshments (drinks and snacks) are available for finishers after the download. Competitors selected for doping testing will be met by their chaperones in the finish chute.

Cool down is possible within the Arena limits. Competitors having completed their relay leg are not permitted to converse with relay competitors waiting to start.

All competitors, whether they finish their course or not, must download. This is a safety procedure so that we can be certain that all competitors are off the course.

If a competitor misses one or more controls, does not visit the controls in the correct order, or exceeds the maximum time on course, they will be disqualified.

Map Return

An announcement will be made when maps are available for pick-up in the Arena. Please take your own map. Maps not picked up will be available the following day at the Event Centre.

Print Technology

All competition maps are printed on 120gsm/32 lb paper and sealed in a 0.08mm/3mil plastic bag. Maps do not have a legend – a colour legend will be posted on the notice board at the Event Centre and on the local wifi network.

Duplicate, clean printed maps will NOT be available; however, PDFs of all maps will be posted on NAOC2018.ca after each event.

Control Descriptions

Control descriptions are in accordance with the 2018 IOF International Specification for Control Descriptions. This includes the distance from the start line to the start control.

Control descriptions will be printed on the map. Loose control descriptions will be available in the start grid at the T-2 minute line for all events, except the Relay (where there are no loose control descriptions).

Loose control descriptions will be on plain (non-waterproof) paper: competitors are encouraged to bring control description holders. There will be clear tape available for those without a control description holder. Control description sizes are listed in the details for each event, measured to the printed boarder. The actual cut size will include a small blank boarder (approximately 0.5cm left, right and bottom, and 2 cm on the top).

Competitors in Classes F10, F11-12, M 10, M11-12, Open1 and Open2 will have a choice between loose English language control descriptions and loose IOF symbol control descriptions.

Model Event – Friday August 17

FIRST START: 10:00

COURSE CLOSURE: 16:00

PARKING LOCATION: 60.705N, 134.998W

GENERAL INFORMATION: Information common to all events is covered in the first part of this bulletin.

MAPPING: The Model Event will provide relevant examples of cartography, negative terrain and control descriptions. The Model Event map will be distributed in registration packages, and available for purchase at the Package Pick-up.

The Model Event will be supervised and model controls will be set only during the scheduled period. The Model event has course closure at 16:00. After course closure the model event area is embargoed until August 25.

The Model Event has control points which can be visited in any order. The controls will be set with flags and manual punches (no SI units) on a control stand. An example of a marked route between two controls will be shown in the forest and on the control description.

A demonstration control will be set up with flag, SI unit, and manual punch, both on a control stand (majority of the controls during the competitions use control stands) and saw horses that are used when there is more than one SI unit at a control (competitors can punch either control) or where a control stand cannot be set up (example on hard ground).

A SI Air+ punching system will be demonstrated at the model
An example of taping used to mark an out-of-bounds area, will be set up.

Bear aware: Conservation Officers will provide a bear information session at 10:30 and repeated at 12:00.

Bus Schedule: The shuttle bus will be available to take competitors that selected event bussing (B on their bib) to the model event in the morning, returning early afternoon.

Parking: Parking will be off-road close to the arena. Please watch for competitors crossing the road.

Directions: Distance – 3.7 km.

From the SS Klondike, take the first exit of the roundabout onto Robert Service Way. At the next intersection, turn right onto 2nd Avenue and cross the Yukon River. Continue straight on Lewes Blvd to the second set of traffic lights. Turn left onto Alsek Drive. Turn left at Grey Mt. Rd. The parking is 2.1 km on the left side of Grey Mt Rd.

NAOC Long WRE – Saturday August 18

COURSE PLANNER: Ross Burnett, Yukon Orienteering Association

COURSE CONTROLLER: Philippa McNeil, Yukon Orienteering Association

FIRST START: 10:00

LAST START: 13:30

OPEN CLASS START TIMES: Start area 1: 10:30 -12:00; Start area 2: 10:00 – 12:30

START INTERVAL: 3 minutes

COURSE CLOSURE: 16:30

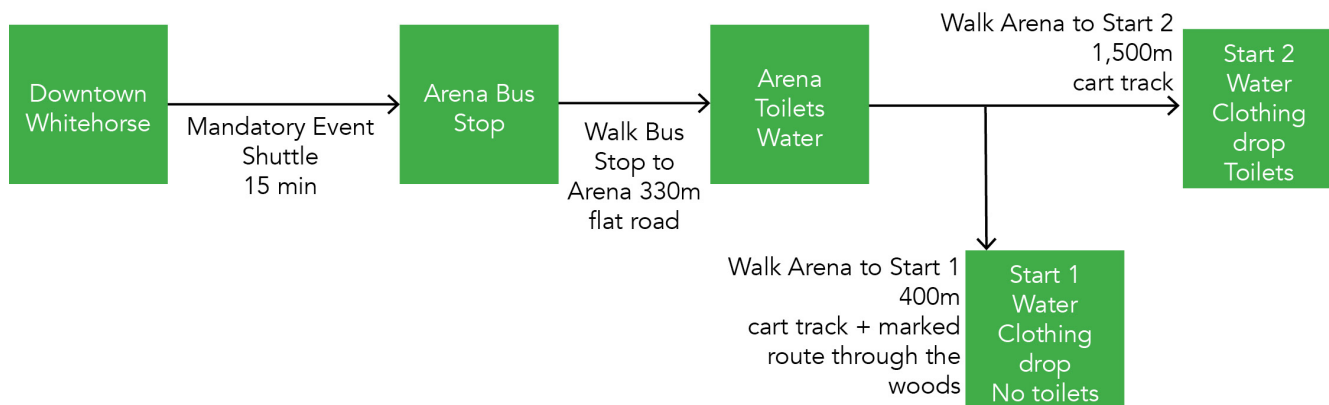
MAXIMUM TIME ON COURSE: 180 minutes

ARENA LOCATION: 60.753 N, 135.042 W

PARKING LOCATION FOR MANDATORY SHUTTLE: 60.7128N, 135.0414W (FH Collins High School on Lewes Boulevard)

GENERAL INFORMATION: Information common to all events is covered in the first part of this bulletin.

SCHEMATIC OF TRAVEL TIMES AND DISTANCES



MAPPING: The Croucher Creek map includes a portion of the original Long Lake map and a new, previously unmapped area to the north. The northern most part of the original map area, and the new area were mapped in 2017 by Luděk Krtička and Radim Ondráček; using a LIDAR base map.

The first Long Lake map was produced in 1985 by Afan Jones, using a 1:25,000 topographic map as a base. A brand-new map was started in 1998, using a photogrammetric basemap produced by Pat Dunlavey, with various updates in 1998, 2004, 2014 and 2017.

NON-STANDARD SYMBOLS: There are no non-standard symbols used for this event

CONTROL DESCRIPTIONS: For the control descriptions printed on the map the cell size is 5mm

HAZARDS: Some of the courses cross the Long Lake Road as identified in the event details table. Vehicle traffic is expected to be light. Please use caution. There are no mandatory crossing locations or marked routes, and there will not be any race marshals. This arena area has been well used for parties and may have broken glass. Wear shoes at all time. A pit in the arena is marked with out-of-bounds tape.

TERRAIN DESCRIPTION: Croucher Creek hosts a range of terrain types from areas with sparse detail and little elevation change to areas of intricate contour detail, including negative topography (depressions). The forest is mixed pine, spruce and aspen with low ground cover or shrubs. There are areas with deadfall as well as small clearings interspersed through the forest. There are very few water or rock features.

Linear features include footpaths, vehicle tracks, cut lines, power lines and less distinct wood-cutting trails. Some animal trails appear but are not mapped.

There are a small number of relatively indistinct trails (mapped as symbol 507) left over from firewood cutters using light machinery. In most cases these trails do not have a well-defined exposed earth trail, but are defined by light ruts and broken vegetation. There are also a small number of survey cut lines (mapped as symbol 508) which may be difficult to notice, especially if you are crossing them at right angles. On the other hand, they are fairly obvious if you are travelling along them.



Heavy deadfall is present in some localized areas, and can be an obstacle for the competitor. Getting through areas with heavy deadfall is possible, but depends on the direction of travel i.e., you may be able to get through deadfall easily in one direction but not from another direction. Usually, deadfall slows down the competitor and requires climbing over the fallen trees. For this reason, competitors may wish to avoid areas with heavy deadfall during their route choices. Heavy deadfall is represented with symbol 409: Vegetation, walk, good visibility.

Since the course maps were printed there has been some minor maintenance work done along one of the power lines, including some grading of the vehicle track, and the creation of a few small graded areas where there had been vegetation. This should not affect route choice or navigation, but is something to be aware. Support towers (pylons) are shown at their actual location.

QUARANTINE: There will be no quarantine for this event.

WARM-UP AREA: Warm-up maps are available at the exit from the arena, free of charge, one per competitor. Scale is 1:10,000. the warm-up map shows the routes to the starts and a section of terrain where competitors can warm-up.

For Start #1, competitors may warm-up in the vicinity of the arena, or on the vehicle track leading from the bus drop off to the arena.

For Start #2, there is plenty of room to warm-up prior to T-5 pre-call-up line. The area north of the marked route to the start is out-of-bounds.

STARTS: This event uses two start areas:

- Start 1 is 400 m from the arena along a downhill track. The area to the north of the flagged route is out of bounds. Plan to use the toilets in the Arena before heading to the start. First start is at 10:30. The last start time for Open5 and Open6 will be 12:00.
- Start 2 is 1.5 km from the Arena along a flagged route (continue past Start 1). The area to the north of the flagged route is out of bounds. The route is along a side hill with views of Whitehorse. Toilets will be located in the Arena and at Start 2. First start is at 10:00. The last start time for Open1, Open2, Open3, Open4, Open7 and Open8 will be 12:30.

FINISH: There will be one finish for all classes at the arena.

CLOTHING DROP: There will be a clothing drop available at both Start 1 and Start 2. Clothing left at the start will be delivered to the Event Centre in the arena. There is no guarantee that clothing will arrive in the arena prior to the finishing competitor – bring spare clothing for post-race. Clothing should be labelled. Unclaimed clothing will be brought to the NAOC Middle.

SPECTATOR/WATER CONTROL: Competitors in M21E, F21E, M19-20E and M35 will pass near the arena to a spectator/water control which is at km 9.0 for M21E and km 5.6 for F21E, M19-20E and M35. They may leave their own clearly marked drink bottle at the table just outside the out-of-bounds area for the spectator control, before they head to the start. The bottles will be moved by race officials to the refreshment table inside the out-of-bounds area, adjacent to the control. Water in cups will also be provided at the control. There is no marked route associated with the spectator control. Competitors will be crossing the arena access road and approaching the control behind barrier tape depicting the area as out of bounds for non-competitors. The general location is indicated on the arena map.

WATER ON COURSE: There will be water stations in accordance with IOF rule 18 for elite classes i.e. at least every 25 minutes during the race, if the estimated winning time is more than 30 minutes. All other classes meet the Orienteering Canada rules.

EVENT DETAILS:

Class	Course Length (km)	Climb (m)	# Controls	Map Scale	RWT (minutes)	# Water stations	Start #	Loose Control Description Size	Cross Long Lake Rd
F10 M10 Open1	2.8	65	12	7,500	30-35	0	2	50 X 115	no
F11-12 M11-12 Open2	3.2	80	11	10,000	30-35	0	2	50 X 110	no
F13-14 F15-16S M13-14 M15-16S Open 3	3.1	75	9	10,000	30-35	1	2	50 X 110	no
F15-16	5.0	105	9	10,000	50-55	1	2	50 X 100	yes

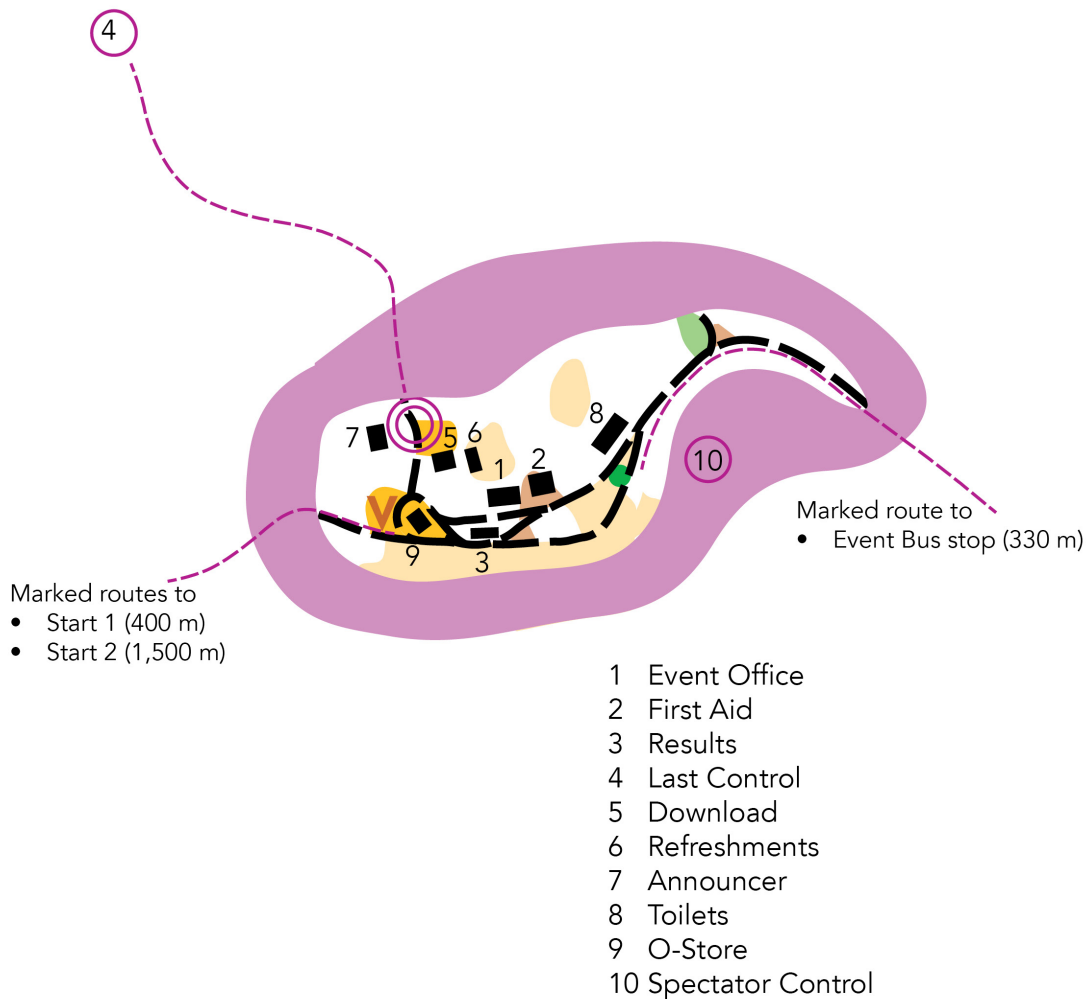
M15-16 Open4									
F75 M75 M80	2.6	55	7	7,500	45-50	1	1	50 X 85	no
F80 F85 F90 M85 M90 Open5	2.2	50	6	7,500	45-50	2	1	50 X 85	no
F55	4.4	110	9	7,500	50-55	1	1	50 X 100	yes
F17-20S F65 M17-20S Open6	4.0	105	8	7,500	50-55	1	1	50 X 100	yes
M65	5.1	155	10	10,000	50-55	1	2	50 X 105	no
F45 Open7	4.8	120	11	10,000	50-55	1	2	50 X 110	no
M55	6.2	170	10	10,000	55-60	3	2	50 X 105	yes
F17-18E F21S F35 Open8	6.0	180	11	10,000	55-60	2	2	50 X 115	yes
M17-18E M21S M45	6.8	200	12	10,000	55-60	3	2	50 X 115	yes
F19-20E	6.8	200	12	15,000	55-60	3	2	50 X 115	yes
F21E M19-20E M35	8.9	255	19	15,000	70-80	3	2	50 X 160	yes
M21E	12.1	320	23	15,000	90-100	5	2	50 X 180	yes

The contour interval is 5 metres for all NAOC long maps.

Special Notes:

F19-20E, M17-19E, M21S, and M45: These four classes run the same course, but F19-20E uses a map at 1:15,000 scale. The other classes use a map at 1:10,000 scale.

ARENA MAP



TRANSPORTATION: The designated parking is at FH Collins High School in Whitehorse. The Event Shuttle is the mandatory transportation to the arena. Please plan to arrive at the pick-up location at least 1.5 hrs prior to your start time.

A bus will leave from the designated parking for the NAOC Long arena approximately every 15 minutes from 08:00 to 11:30. Priority will be given to competitors based on start time. The bus takes approximately 15 minutes to reach the Arena Bus Stop.

Buses from the arena back to downtown Whitehorse are unscheduled and will leave when full. It is anticipated that the buses will start running at approximately 12:00. The last bus will depart after course closure.

OPENING CEREMONY, NAOC LONG MEDALS AND DESSERT POTLUCK

Join us at Shipyards park at 19:00 for the NAOC2018 opening ceremony and NAOC Long Awards.

After the awards, enjoy a dessert potluck while catching up with orienteers from around the world.

Dessert Potluck – everyone brings a dessert to share – fruit, pie, cookies, cake, cheese and crackers, etc. As there is no refrigeration, ice-cream is not recommended. Bring your own plates and cups to reduce waste. Juice and water will be provided.

NAOC Middle WRE – Sunday August 19

COURSE PLANNER: Barbara Scheck, Yukon Orienteering Association

COURSE CONTROLLER: John Rance, Greater Vancouver Orienteering Club

FIRST START: 10:00

LAST START: 13:00

QUARANTINE CLOSES: 09:50

OPEN CLASS START TIMES: Start area 1: 10:00 -12:00; Start area 2: 10:00 – 12:00

START INTERVAL: 2 minutes

COURSE CLOSURE: 15:00

MAXIMUM TIME ON COURSE: 120 minutes

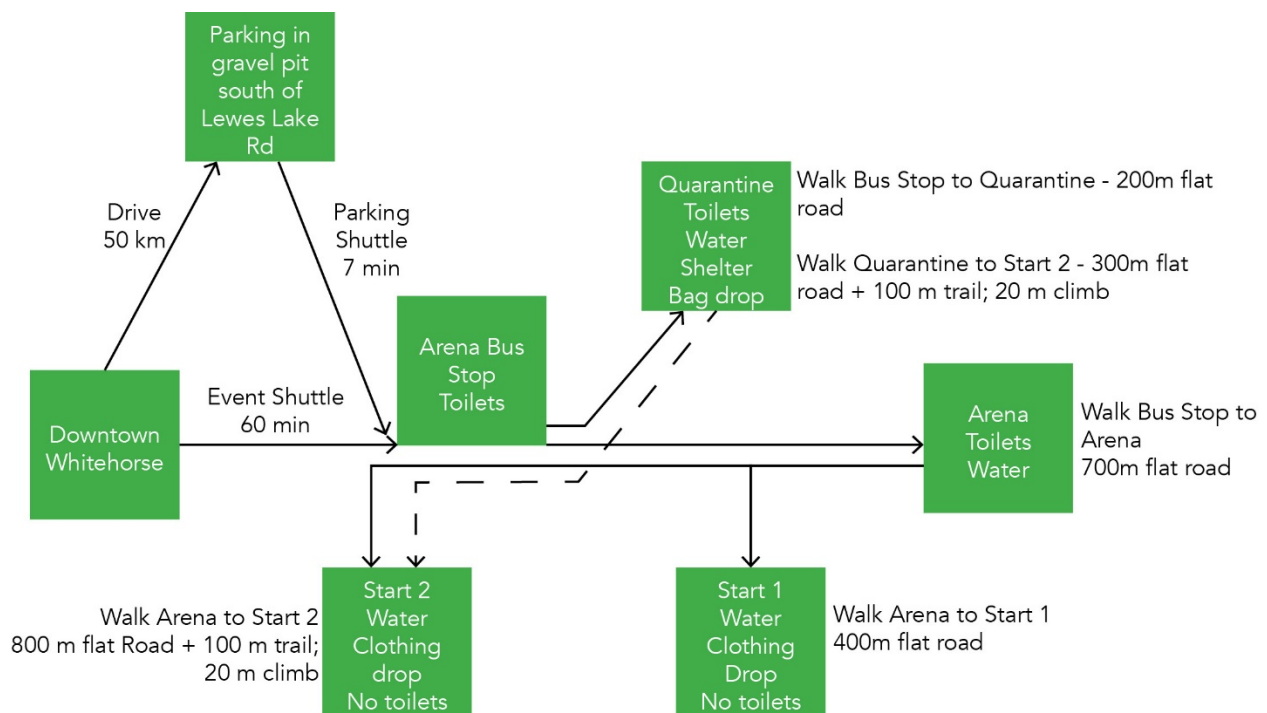
ARENA LOCATION: 60.368 N, 134.823 W

ARENA PARKING LOCATION: 60.361 N, 134.785 W

PARKING LOCATION FOR SHUTTLE DIRECTLY FROM WHITEHORSE: 60.7128N, 135.0414W (FH Collins High School on Lewes Boulevard)

GENERAL INFORMATION: Information common to all events is covered in the first part of this bulletin.

SCHEMATIC OF TRAVEL TIMES AND DISTANCES



MAPPING:

- 2009 base map compiled: Ivar Helgesen
- 2009 fieldwork: Ivar Helgesen, Afan Jones; drafting: Ivar Helgesen

- 2015 fieldwork and drafting: Forest Pearson
- 2017 (July) fieldwork revisions and drafting: Luděk Krtička and Radim Ondráček

NON-STANDARD SYMBOLS: No non-standard symbols are used for this event.

HAZARDS: All courses cross a rough track. Traffic is infrequent and low speed, but exercise caution when crossing. The road from the Bus Stop to the Arena is a rough road with in-frequent traffic. Competitors should yield to vehicles.

The arena is a unique and beautiful area. It can be windy and cold as it is relatively exposed. Bring warm clothing.



OUT OF BOUNDS: Competitors who have finished their course may not travel on Lewes Lake Rd (from the arena to the start area or bus stop) until after the last start. Buses to Whitehorse and the parking will be scheduled to leave only after the last start.

Near start 2 is an out of bounds area marked in the terrain with yellow and black tape. Competitors must not enter this area.

TERRAIN DESCRIPTION: The Lewes Lake South West map area is very technically challenging with fine negative contour detail. There is an intricate mix of open esker with aspen; old growth spruce and pine forest. There are dense areas of deadfall. Ground vegetation varies between grassy or stony open slopes to deep moss understory. The map area has very few trails. Unique marl features are found at the lake edge. Controls are the legal distance apart, but they are densely packed. Please check control numbers as controls are situated close.

Heavy deadfall is present in some localized areas, and can be an obstacle for the competitor. Getting through areas with heavy deadfall is possible, but depends on the direction of running i.e. you may be able to get through deadfall easily in one direction but not from another direction. Usually, deadfall slows down the competitor and requires climbing over the fallen trees. For this reason, competitors may wish to avoid areas with heavy deadfall during their route choices. Heavy deadfall is represented with symbol 409: Vegetation, walk, good visibility.

QUARANTINE: There will be a pre-race quarantine area for the following age classes: F17-18E, F19-20E, M17-18E, M19-20E, F21E and M21E.

All competitors must be signed into the quarantine by 09:50. Competitors must follow the marked route from the bus drop-off directly to the quarantine – they are not permitted to go to the arena before quarantine. Toilets, shelter and water are available in quarantine. Bags labeled with the competitor's name may be left at the designated spot in quarantine for transport to the Event Centre.

The quarantine area will be located on the private land of Felix and Astrid Vogt. Please respect their private property. There will be a small grass area for warming up (approximately 100-200 m circuit around a pond). The quarantine area is located approximately 400 m from the start. Competitors will be permitted to leave quarantine 10 minutes prior to their T-5 pre-call-up time and must follow the marked route directly to the start. Once leaving the quarantine, competitors and coaches are not permitted to re-enter quarantine.

WARM-UP AREA: Non-quarantine competitors may use Lewes Lake Rd for warm-up. Running on the road is permitted from the arena to the bus drop-off area. Yield to traffic. Extra care should be taken on the short section of road past the bus stop. Competitors are asked to stay on the north side of the road. The road is out of bounds past the turn-off to Start 2 due to buses and local traffic. There is no warm-up map. The start area is quite small and confined. Competitors should consider completing their warm-up on the road west of the bus stop.

STARTS: This event uses 2 start areas:

- Start 1 is 400m from the arena with zero climb along a flat winding track. Plan to use the toilets in the arena before heading to the start. First start is at 10:30. The last start for Open1 and Open2 will be 12:00.
- Start 2 is 800m from the arena along a flat winding gravel road followed by 100m on a forest trail with 20 metres of climb. Plan to use the toilets in the arena before heading to the start. You will pass the bus stop, which will have 2 toilets. First start is at 10:00. The last start for Open3 – Open8 will be 12:00.

FINISH: There will be one finish for all Classes.

CLOTHING DROP: There will be a clothing drop available at the start; clothing left at the start will be delivered to the Event Centre at the finish arena. Clothing should be labelled.

WATER STATIONS: There will be water stations in accordance with IOF rule 18 for elite classes i.e. at least every 25 minutes during the race, if the estimated winning time is more than 30 minutes. All other classes meet the Orienteering Canada rules.

EVENT DETAILS:

Class	Course Length (km)	Climb (m)	# Controls	Map Scale	RWT (minutes)	# Water stations	Start #	Loose Control Description Size (mm)
F10 M10 Open1	2.0	45	8	7,500	20-25	0	1	50 X 90
F11-12 M11-12 Open2	2.7	80	14**	7,500	20-25	0	1	50 X 140
F13-14 F15-16S M13-14 M15-16S Open3	2.3	115	15**	10,000	20-25	0	2	50 X 130
F15-16 M15-16 Open4	2.7	150	15	10,000	25-30	0	2	50 X 110
F75 M75 M80 Open5	1.4	25	8	7,500	30-35	0	2	50 X 90
F80 F85 F90 M85 M90	1.0	50	7	7,500	30-35	0	1	50 X 90
F55	2.3	90	11	10,000	30-35	0	2	50 X 110
F17-20S F65 M17-20S Open6	2.1	75	10	7,500	30-35	0	2	50 X 110
M65	2.5	105	13	7,500	30-35	0	2	50 X 120
F45 Open7	2.6	125	13	10,000	30-35	0	2	50 X 120
M55	2.7	100	12	10,000	30-35	0	2	50 X 115
F35 Open8	2.7	120	14	10,000	30-35	0	2	50 X 125
F17-18E F21S M45	3.0	145	13	10,000	30-35	1	2	50 X 120

TRANSPORTATION:

1. Competitors that selected event bussing (B on their bib) will take the Event Shuttle directly from Whitehorse to the arena bus stop. The first bus is scheduled to leave at 07:30, with drop-off being 60 minutes later. The last bus is scheduled to arrive by 10:00. Quarantine will commence on the bus for all competitors still on a bus at 10:00.
2. All other competitors will drive 50 km south of Whitehorse, park in the designated parking in a gravel pit off the South Klondike Highway just south of Lewes Lake Rd, and take a parking shuttle to the arena bus stop. Due to the highway crossing and Lewes Lake Rd being narrow, competitors are not permitted to walk the 3 km from the parking to the arena. The parking shuttle will start at 8:45 and operate in a continuous loop.

After the last start, buses will start to make the return trip. The bus drop-off zone will have two buses clearly signed as being the Whitehorse bus versus the parking shuttle. Please make sure you get on the correct bus! Bus departures are unscheduled and will leave when full.

AWARDS: Join us on the Wharf on the Yukon River at 19:00 for the NAOC2018 Middle Medal Ceremony.

NAOC Relay: Monday August 20

COURSE PLANNER: Forest Pearson, Yukon Orienteering Association

COURSE CONTROLLERS: Adrian Zissos, Foothills Wanderers and Bryan Chubb, Williams Lake Orienteering Club

DEADLINE FOR SUBMITTING NATIONAL RELAY TEAMS: 10:00 Sunday 2018-08-19 at the NAOC Middle

DEMONSTRATION OF MAP EXCHANGE: 09:45

MASS START 1: 10:00 for National Team Relay

MASS START 2: 10:10 for Club Relay Teams

MASS START 3: 12:00 for all remaining competitors

COURSE CLOSURE: 13:30

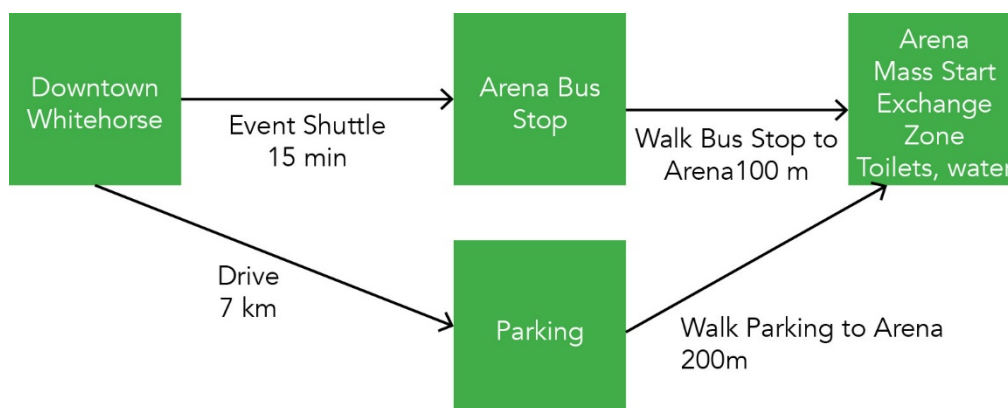
ARENA LOCATION: 60.692 N, 134.966 W

ARENA PARKING LOCATION: 60.694N, 134.970 W

PARKING LOCATION FOR SHUTTLE DIRECTLY FROM WHITEHORSE: 60.7128N, 135.0414W (FH Collins High School on Lewes Boulevard)

GENERAL INFORMATION: Information common to all events is covered in the first part of this bulletin.

SCHEMATIC OF TRAVEL TIMES AND DISTANCES



MAPPING/MAPPERS: The area was originally mapped as part of the Magnusson map in the 1990s. It was remapped in 2000 by Malcolm Adams for the 2002 Western Canadian Championships. A completely new map using a LiDAR base was made of the area in 2016 by Luděk Krtička and Martin Poklop. The map is made strictly to the ISOM2017 standards and with the focus on map legibility with features well generalized for the running competitive orienteer.

SPECIAL SYMBOLS: The relay competition area has a special treat for competitors: in addition to being a ski biathlon facility, the area is also a world-class wildland archery range. This means there are numerous full-size three-dimensional animal targets throughout the forest. These targets include raccoons, skunks, bears, bison and even dinosaurs! The targets are between 0.5 m to 1.5 m in size with many targets having some form of a backstop, being either an upright piece of Styrofoam or sheet of fabric tied between the trees, making even

the small targets conspicuous in the forest. The targets are firmly affixed to the ground and are mapped with the *Cairn* symbol (ISOM2017 symbol 526). We hope you enjoy the surprise of these looming, but immobile, animals waiting to greet you in the forest!



CONTROL DESCRIPTIONS: Control descriptions are only printed on the map; loose control descriptions are not provided. As per relay convention, the control code is also printed on the map next to the control number.

There are many controls near one another. Make sure you check your codes.

HAZARDS: The competition area is physically rugged with abundant dead-fall in the forest, especially adjacent the ski-trails. Competitors are encouraged to exercise caution. The map area is all wildland with no road crossings.

TERRAIN DESCRIPTION: The area including and surrounding the biathlon range and convoluted ski trail network is a mix of open pine forest and denser spruce forest. 'Scandinavian-like terrain' with some cliffs and boulders. Low deadfall is common throughout the area, and this, combined with deep moss and Labrador Tea understory, will make for physical and demanding forest running. Only areas of significant and extensive deadfall are mapped with the *Vegetation, slow running, good visibility* symbol or the *Vegetation, walk, good visibility* symbol (symbols 407 and 409 respectively,) depending on deadfall density.

Note that the competition area is adjacent to Whitehorse's rifle range and local hunters will be practicing in preparation for the autumn moose hunting season. The entire orienteering map area and all courses are well away from active shooting and there is no risk to competitors. However, you will hear rifle shooting sounds, so don't be alarmed.

WARM-UP MAP: There is a warm-up map area directly across Grey Mt. Road from the arena entrance. Warm up maps will be available at the arena entrance, under the bridge. At the exchange zone there is also a small warm-up field.

CLOTHING DROP: None, as the start, exchange and finish are all in the arena.

START PROCEEDURE

The mass start location is situated in penalty loop adjacent to the biathlon range, located in the relay arena. Enter the start area by crossing the finish chute at the designated location.

At the start, the first-leg runner of each team will be arranged numerically based on team number. For the Club relay, teams will be arranged in three lines based on the category: Expert, Advanced and Sport.

- The National Team relay starts at 10:00 am
- The Club Relay starts at 10:10 am.

First-leg runners will be given a rolled or face-down map by an official. When you get the map, you must make sure that the map has your team's number on it. It is always the competitor's responsibility to check that the map is the correct one, both in the start and in the exchange. National team relay runners will receive a rolled map, secured with an elastic band. Unrolling or flipping over the map prior to the start signal is forbidden.

The start signal for each of the relays will be an airhorn. You are not allowed to move forward before the start signal. Teams that false start or cause others to false start will be disqualified.

There is a mandatory 170m flagged route from the starting area to the start flag (the actual starting point). There is no SI unit at the start flag.

EXCHANGE: There is a marked route from the last control to the exchange zone / finish line. Before arriving to the exchange or finish, the competitors will be split to separate lanes for either the exchange or the finish for the 3rd leg runner. The exchange lane will be to the right and the finish is to the left for the final runner.

Having arrived in the exchange area, punch your SI card in the Finish unit and hand over your map to an official. Then go to the map boards and get your team's map for the next runner. Check that the map is the correct one: it will have your team number and the number of the next leg.

Pass the map to the next runner of your team waiting on the other side of the exchange / map board fence. The back side (outgoing runner side) of the fence is marked with the team numbers indicating where the exchange should occur based on the team's number. The map must be given to the next leg runner at the exchange fence at the location indicated on the number bib.

It is the competitors' own responsibility to make sure they take the correct map from the map board. It is also the leaving competitors' own responsibility to check they have received the correct map. The wrong choice will lead to disqualification. If there is no map for your team on the board, the arriving competitor should report

this to the official located at the end of the exchange area. The official will guide the outbound competitor to the point where the new map is given at end of the exchange fence.

Only competitors wearing bib numbers are allowed to enter the exchange area. Competitors enter the area by crossing the finish chute at the designated location. Clear and check units are located in the warm-up/waiting area adjacent to the exchange zone. The arriving competitors coming from the terrain for an exchange can be seen from the warm-up/waiting area adjacent to the exchange zone.

The exchange area has toilets and covered shelter for leaving warm-up clothes.

A competitor who has come from the terrain for an exchange cannot leave the area without visiting the download, where the SI card is read for the results system. The exchange times and the positions of the teams are based on the exchange punching.

Please pay attention to other competitors on both sides of the exchange fence! Avoid warming up in places where you might block runners already competing. A small warm-up area is reserved for competitors waiting for the exchange to the east of the exchange fence.

Closing of the Exchange and Re-Start

The exchange area will be closed at 11:50. Any runners of teams that have not started by then will take part in a re-start. The re-start for all remaining runners will be at 12:00 noon. Remaining runners will be directed by officials to the map boards adjacent to their team's map. Any teams that false start will be disqualified. The finish line for the relay will be closed at 13:30 after which will begin the control collection from the forest.

SPECTATOR CONTROL: Some of the courses have a marked route that will pass through the arena to a spectator control. The marked route must be followed.

WATER ON COURSE:

EVENT DETAILS:

National Team Relay:

Category	Length (km)	Climb (m)	# of Controls	# of water stations	Map scale	RWT min (per leg)
Senior Men	6.4	195	17	1	10,000	45
Senior Women	5.5	160	17	1	10,000	40-45
Junior Men						
• Leg 1	3.4	85	12	1	10,000	40
• Leg 2 & 3	5.5	160	17	1	10,000	40-45
Junior Women	3.4	85	12	1	10,000	40

The contour interval is 5 metres for all Relay maps.

The National Team relay is limited to two teams each for Canada and USA per category. National federations will form their respective teams. This is a classic forest relay with three members per team.

The National Team Relay courses will be using a double-sided map. The first half of the course is printed on one side of the map and the second half printed on the other side. This is like a map exchange, but rather

than physically exchanging maps, the competitors will simply turn-over their maps part way through the course.

Club Championship Relay:

Category	Length (km)	Climb (m)	# of Controls	# of water stations	Map scale	RWT min (per leg)
Expert						
• Leg 1 & 2	2.2	60	8	0	10,000	25
• Leg 3*	3.4	85	12	1	10,000	40
Advanced						
• Leg 1 & 2	1.7	50	7	0	7,500	25
• Leg 3	2.2	60	8	0	7,500	25
Sport						
• Leg 1 & 2	1.7	45	8	0	7,500	20
• Leg 3	1.7	50	7	0	7,500	25

** Note that Leg 3 of the Expert relay will be using a double-sided map. The first half of the course is printed on one side of the map and the second half printed on the other side. This is like a map exchange, but rather than physically exchanging maps, the competitors will simply turn-over their maps part way through the course.*

The Club Championship Relay is a classic forest relay with three members per team. Team categories are based on a points system. The team has the option to 'move up' to a more difficult category, i.e. a category with fewer points than your team has. Note that a more difficult category will have more difficult courses! Some form of forking may be included.

Eligibility:

- Everyone can participate
- To be eligible for the club championship, all team members must be from the same North American club
- Non-eligible teams are welcome and will be recognized in the awards ceremony if they win their category.

CLUB CHAMPIONSHIP RELAY POINTS SYSTEM

Age	Male	Female
15-16	2	2
17-20	1	2
21-34	0	1
35-49	1	3
50-59	2	4
60-69	3	5
70 and over	5	6
Total team points place your team into a category: Club Expert: 0-2 points Club Advanced: 3-5 points Club Sport: 6+ points		

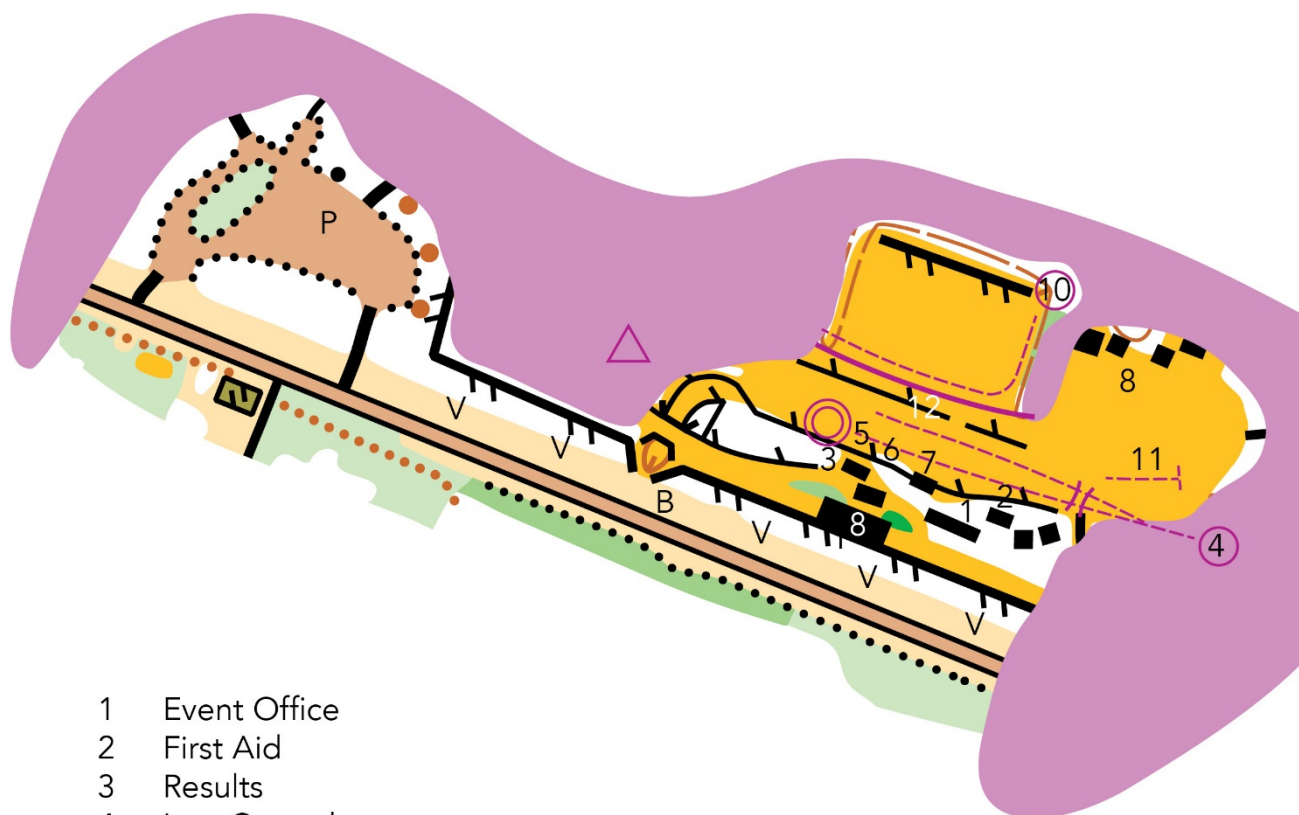
YOUTH COURSES

The relay is not suitable for children 14 years old and under. Two individual courses will be open for those not participating in the relays. The courses are using SI with self-start and finish.

Beginner and Novice level orienteering courses, with lots of fun surprises that will make you want to run the courses again! Complete one or both courses, as many times as you'd like. Go alone or in pairs with your friend.

- 1:7,500 scale map.
- Beginner Course: 1.0 km
- Novice Course: 1.4 km
- Course Open time: 10:30 to 12:00
- Register and pickup your map at the Event Office at the relay arena

ARENA MAP



- 1 Event Office
- 2 First Aid
- 3 Results
- 4 Last Control
- 5 Download
- 6 Refreshments
- 7 Announcer
- 8 Toilets
- 10 Spectator Control
- 11 Mass start
- 12 Map wall
- B Arena Bus Stop
- P Competitor Parking
- V Volunteer parking only

TRANSPORTATION

1. Competitors that selected event busing (B on their bib) will take the Event Shuttle directly from Whitehorse to the arena bus stop.
 - Leg 1 competitors will have the priority to board the first bus, scheduled to leave at 08:20. All buses are scheduled to arrive by 09:30, in time for the relay demonstration at 9:45.
 - Busses are unscheduled for the return to Whitehorse, and will leave following the medal ceremony.
2. All other competitors will drive to the biathlon range (7 km from Whitehorse), park in the designated competitor parking, and walk to the arena.

TRIBUTE TO ADRIAN ZISSOS

A tribute to Adrian Zissos will be held in the Relay Arena before the medal ceremony. Adrian loved relays and was instrumental in the initial planning and vision of the NAOOC2018 event. This is an opportunity for orienteers to celebrate Adrian and his enormous contributions to orienteering.

AWARDS

Relay medals and awards will be presented in the arena, as soon as possible after the results are confirmed.

NAOC BANQUET

Time: Doors open at 18:00

Location: Coast High Country Inn, 4051 4th Avenue

Tickets: In your registration package if you pre-ordered tickets. There may be a few left for sale at the Event Centre

HPP SILENT AUCTION

The annual High Performance Program (HPP) Silent Auction is happening on August 20 at the North American Orienteering Championships in Whitehorse! In order for this event to be a success, we rely on donations. Do you have anything you can donate? Possibilities include: artwork or crafts, gently used/new clothes or orienteering gear, baked goods, event entries, gift certificates to local businesses, gift certificates for something that uses your expertise (e.g. logo design, coaching, training plans), a stay at your cabin. Other ideas are also welcome! Donations can be left at package pick up.

NAOC/COC Sprint WRE: Tuesday August 21

COURSE PLANNER: Brent Langbakk, Yukon Orienteering Association

COURSE CONTROLLER: Erik Blake, Yukon Orienteering Association

FIRST START: 10:00

LAST START: 11:30

QUARANTINE CLOSES: 09:50

OPEN CLASS START TIMES: 10:00 -11:00

START INTERVAL: 1 minute

COURSE CLOSURE: 12:30

MAXIMUM TIME ON COURSE: 50 minutes

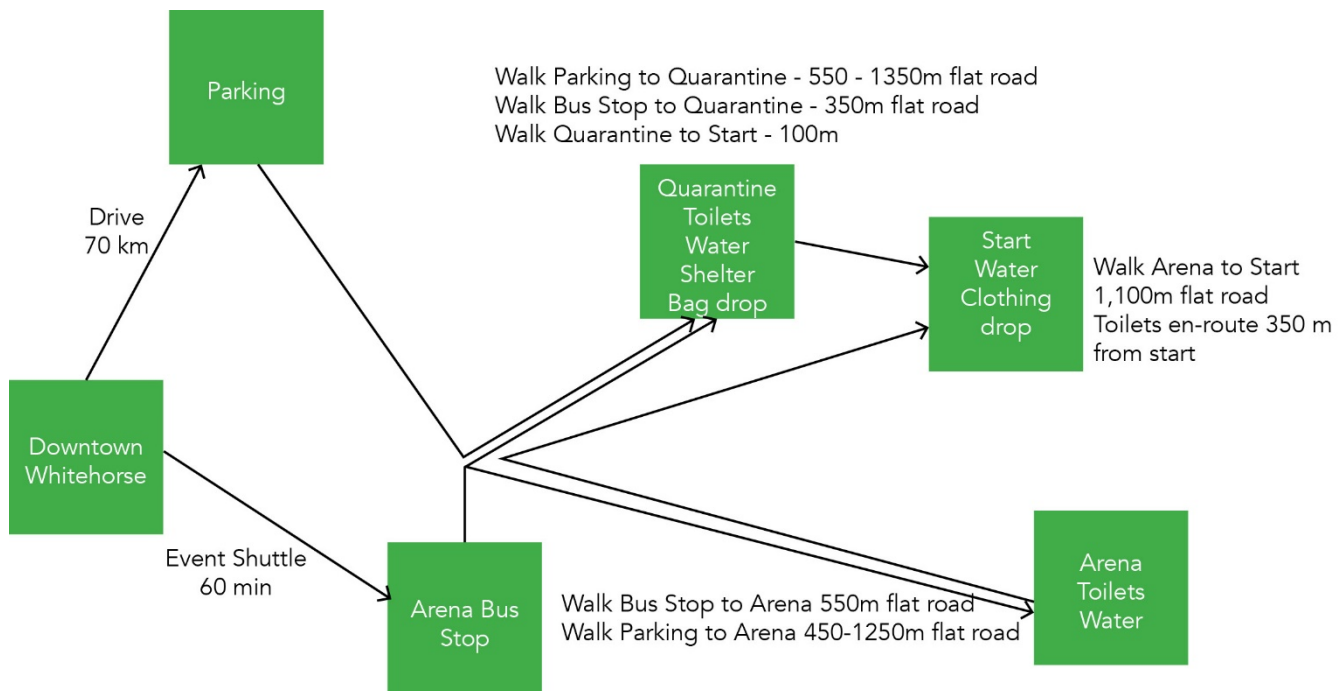
ARENA LOCATION: 60.171 N, 134.711 W

ARENA PARKING LOCATION: 60.175 N, 134.705 W

PARKING LOCATION FOR SHUTTLE DIRECTLY FROM WHITEHORSE: 60.701N, 135.048W (Ball Diamonds, Robert Service Way, across from Robert Service Campground)

GENERAL INFORMATION: Information common to all events is covered in the first part of this bulletin.

SCHEMATIC OF TRAVEL TIMES AND DISTANCES



MAPPING: The Carcross sprint map area comprises a portion of the original Carcross Desert and Dunes map used for the 2011 Canadian Orienteering Championships event.

- 1990: fieldwork and drafting: Ross Burnett.
- 2011: fieldwork: Bryan Chub, Marcello Pradel. Base map compiled by Ivar Helgesen

- 2017: (July) fieldwork revisions and drafting: Luděk Krtička and Radim Ondráček. Base map: LIDAR

NON-STANDARD SYMBOLS: There are no non-standard symbols used for this event.

FOOTWEAR: Metal-studded shoes are not permitted. Only shoes with all rubber soles may be worn.

HAZARDS: As with any urban sprint, there may be traffic on roads, and animals such as dogs.

Road and railway crossings are potential hazards at this event:

- Railway crossings: The railways marked on this map are in active use. Competitors can only cross railways at the crossings **marked on their competition map**. No trains are expected on the tracks during the race. After course closure, there may be trains using the tracks.
- Road crossings: The sprint event takes place within the community of Carcross. Traffic is generally light. Competitors must use caution when crossing any roads before, during, and after the event. There will be no need to cross the main highway during the competition.

OUT OF BOUNDS: With the exception of the marked routes to the start, quarantine and arena, the entire area surrounding the arena will be out of bounds during the NAOC/COC Sprint. Competitors are not permitted to leave the arena after their race until after course closure at 12:30. Competitors are then free to visit Carcross and its attractions throughout the competition area.

On the competition map, areas marked with symbol 528.1 (olive green), symbol 709 (purple hatching), and symbol 714 (purple area) are out of bounds. Some forbidden areas will be marked with red or yellow and black barrier tape to clarify the boundary. Most out-of-bounds areas are private property.

Near the arena, there are two locations containing hazardous waste that will be marked out-of-bounds. Please ask young children to respect these markings.

Course marshals will be monitoring competitors for infractions.

The toilets located at the gas station near the quarantine are out-of-bounds for all NAOC/COC competitors and spectators. You may only use the portable toilets provided by the organizers.

CROSSING RAILWAY TRACKS: There are numerous active railway tracks running through the competition area. No trains are expected on the tracks during the race.

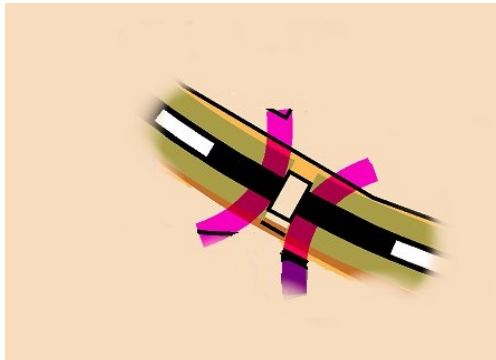
Tracks are marked on the map with ISOM symbol 515.1 overlain with "Forbidden access" symbol 528.1 (olive green). It is forbidden to cross the railway at any point except at designated crossing points. Running beside the tracks to access crossing points is permitted.

Note that you will see tourists and residents of Carcross crossing the tracks everywhere. This behaviour does **not** imply that orienteers can cross the tracks anywhere – orienteers **must** use the marked crossing points.

Course marshals will be monitoring competitors for infractions.

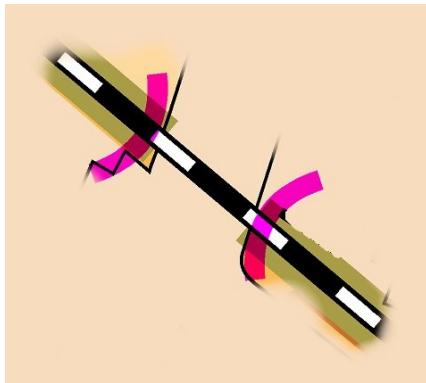
There are three types of permitted railway crossing points marked with symbol 708:

1. Pedestrian crossing points with wooden walkways. You must step onto or leap directly over the wooden walkway. Either side of the wooden crossing is out-of-bounds. There will not be any supplemental barrier tape, but there may be orange cones to mark the crossing.

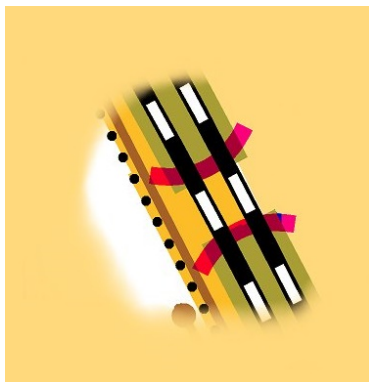


Above: Map snippet shows sample pedestrian railway crossing; and photo in the field.

2. Road crossings and
 3. Temporary crossings
- will both be marked using 2 pairs of orange pylons (1m/40" high) or orange cones (45cm/18" high) on each side of the crossing point. There will not be any supplemental barrier tape.



Above: Map snippet shows permitted railway crossing on a roadway; and photo in the field shows an example of both pylons and cones. Competitors must cross the tracks between the pairs of markers (i.e. on the road).



Above: Map snippet shows permitted temporary railway crossing; and photo in the field using 2 sets of cones. Competitors must cross the track between the pairs of markers.

TERRAIN DESCRIPTION: The sprint venue comprises a mix of urban, parkland, and adjacent forest terrain. The forest area is very open, with subtle and intricate negative topography, and a dense trail network. The forest overlays sand dunes which means most trails are sandy. The urban areas are a mix of meadows, paved and gravel surfaces, and wooden walkways. The walkways may be slippery when wet.

There are active roadways and rail lines on the map that all competitors will be required to cross. Carcross is a quiet town, so road traffic will be light, but competitors must exercise caution when crossing roads and rail lines (see notes for more info about marked rail line crossing points).

WARM-UP: Competitors in the non-elite classes may use the marked track route between the arena and the start for warm-up. There is no warm-up map.

QUARANTINE: There will be a mandatory pre-race quarantine area for the NAOC/COC Sprint for the following age classes: F15-16, F17-18E, F19-20E, M15-16, M17-18E, M19-20E, F21E, M21E. All competitors must be signed into quarantine by 09:50. Competitors must go directly to quarantine from the buses or parking – you are not permitted to go to the Arena first.

A warm-up map will be provided for those in quarantine.

There will be a bag drop service in quarantine. Clothing bags should be labelled. Because the race is short, bags will likely be delayed returning to the arena.

Quarantined competitors must pick up their rental SIAC sticks in quarantine.

All competitors in quarantine will be given a second number bib when they sign into quarantine. The second bib must be affixed to the back of the competitor's shirt. Additional safety pins will be available.

START: This event has one start area. The distance from the arena to the start is 1.1km over flat terrain. The distance from the quarantine to the start is 100m. Toilets will be available 350m from the start and in quarantine.

CLOTHING DROP: There will be a clothing drop at the start; clothing left at the start will be delivered to the finish arena. Clothing should be labelled. Because the race is short, clothing will likely be delayed returning to the arena.

ELECTRONIC TIMING: Touch-free SportIdent timing may be used in the NAOC/COC Sprint. Non-quarantine competitors that have pre-arranged to rent a SIAC touch-free timing stick will pick up their stick at the start area. Quarantined competitors must pick up their rental SIAC sticks in quarantine. If you have rented a SIAC timing stick, allow a few extra minutes to pick it up.

Because the touch-free timing sticks are activated by CHECK units, only CLEAR units will be available outside the start area. Your timing stick (whether touch-free or not) will be checked once you enter the start sequence. Competitors using the Open/Late start chute will be required to use the Start unit at the start line. This will **not** be a touch-free unit – SIAC sticks will need to be inserted into the unit.

All control units on-course will respond to both touch-free (SIAC) and “normal” timing sticks.

FINISH: There will be two finishes.

Remote Finish – Age classes F75, F80, F85, F90, M75, M80, M85, M90, and Open3 will finish at a point away from the arena. Water will be available. Competition maps will be collected until after the last sprint start. A

small map marked with the route to the arena will be given to each competitor using this remote finish. Competitors must visit the finish download station in the arena after their race.

All other age classes finish their race in the arena. The finish chute will split into two lanes after the go-control and will be labeled as follows::

“Touch Free” - Competitors using SIAC Air will go to the left and their finish time will be determined when they pass between the SIAC gates on the finish line. There is no Finish unit for SIAC Air. Competitors proceed to the download station. Rental SIAC sticks must be returned at the download station.

“Regular SI” - Competitors using regular SportIdent will stay to the right. Competitors must punch the finish unit at the finish line, and proceed to the download station.

Competition maps will be collected until after the last competitor starts.

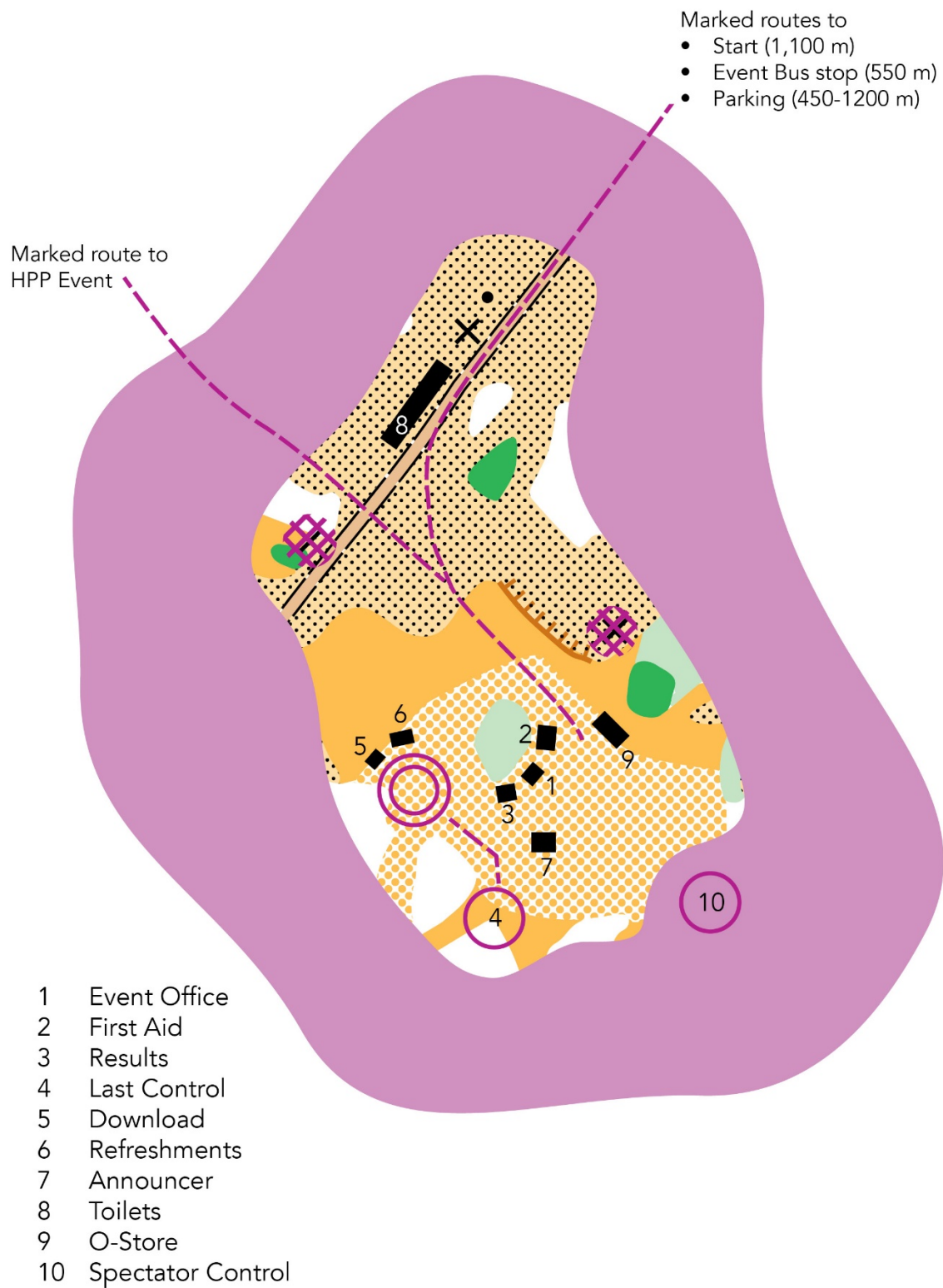
EVENT DETAILS

Class	Course Length (km)	Climb (m)	# Controls	Map Scale	RWT (minutes)	Loose Control Description Size (mm)
F10 M10 Open1	1.4	26	14	4,000	12-15	50 X 130
F11-12 F13-14 F15-16S M11-12 M13-14 M15-16S Open2	1.8	28	15	4,000	12-15	50 X 150
F75 F80 F85 F90 M75 M80 M85 M90 Open3	1.3	6	12	4,000	12-15	50 X 130
F17-20S F45 F55 M17-20S	1.9	36	13	4,000	12-15	50 X 130
F65 M65 Open4	1.9	32	15	4,000	12-15	50 X 135

F15-16 F17-18E F19-20E F21E F35 M15-16	2.5	46	16	4,000	12-15	50 X 150
F21S M55 Open5	2.3	32	16	4,000	12-15	50 X 140
M17-18E M19-20E M21E	3.1	50	15	4,000	12-15	50 X 140
M21S M35 Open6	2.7	38	15	4,000	12-15	50 X 140
M45	2.7	38	15	4,000	15+	50 X 140

The contour interval is 2 metres for all NAOC/COC Sprint courses. There are no water controls on the course.

ARENA MAP



TRANSPORTATION

1. Competitors that selected event busing (B on their bib) will take the Event Shuttle directly from Whitehorse to the arena bus stop.
 - The first bus is scheduled to leave at 07:30. All buses are scheduled to arrive by 9:30.
 - Buses will return to Whitehorse after the HPP event. Carcross is a lovely place to spend some time if you are not participating in the HPP event.
2. All other competitors will drive 70 km to Carcross and park in the designated competitor parking along one side of the Carcross airstrip road. Do not drop off competitors at the Bus Stop nor the gas station near the quarantine nor along the highway. The distance from this parking area to the arena is 450 -1250 m; the distance to the quarantine area is 550 -1350 m. Competitors using the parking area will be required to cross the South Klondike Highway at the marked crossing. The vehicle speed limit at the crossing point is 50 km/hr.



AWARDS: IOF, NAOC and COC medals will be awarded in the arena as soon as possible following the official results. The Björn Kjellström and Future Champions Cups will be awarded to the Senior and Junior National Team members.

CLOSING CEREMONIES: This concludes NAOC 2018.

HPP EVENT: The HPP fundraiser is organized by Bruce McLean (Yukon Orienteering Association), Meghan Rance, and the Canadian High Performance Committee and team members.

The HPP will use the NAOC/COC Sprint arena as the finish area. The start area will be a short walk onto the Carcross Desert Map. This area has large open areas of sand dunes and meadows. The forest is mixed. There are fantastic views of Lake Bennett.

The format will be a THOMASS event, with a mass start schedule for 14:00. Individual starts for novice runners are possible. Map scale is 1:7,500. Contour interval is 2.5 metres.

The course consists of a combination of point-to-point (first and third sections of the course) with a score "O" in the middle. Competitors are assigned the minimum number of controls based on gender and age, that must be visited within the score "O" section. The longest combination will be approximately 3 km. The winning time should be 20-30 minutes, with maximum time on course being 1 hour. Download will be in the NAOC/COC Sprint arena.

Course closure at 15:00

Orienteering Canada Conference and AGM

2018 Orienteering Canada Conference and AGM

Date: Wednesday, August 22, 2018

Location: High Country Coast Hotel, Whitehorse, YT

Time: Conference - 9:00 am to 3:00 pm;

AGM - 3:00 pm to 4:30 pm

Schedule:

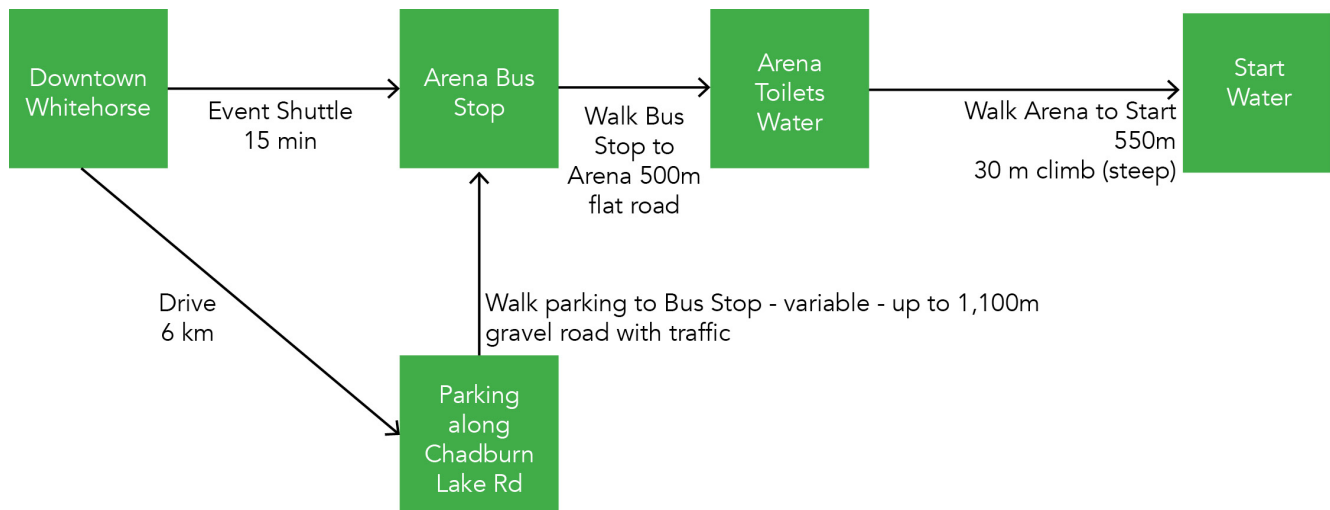
Time	Title	Description
9:00 to 9:45	What's Happening in Mapping in Canada?	Join a round table discussion with the new Mapping Committee to share ideas and look into the future of mapping.
10:00 to 10:45	Hosting Championship Events	Is your club interested in hosting a Championship Event – the Major Events Committee wants to work with you. Join our round table discussion to learn more.
11:00 to 11:45	Revitalizing the Canada Cup Series	How do we encourage more Canada Cup events? We are looking for your input!
12:00 to 1:00	Lunch	On your own
1:00 to 1:45	Magali Robert – title to follow	Overcoming mental fatigue
2:00 to 2:45	Orienteering Canada's Athlete Development Programme – an Update.	Learn how it can help your club and your programmes.
3:00 – 4:30	AGM	

Canadian Orienteering Championships

The COC Long and COC Middle distance events will be staged from the same arena.

GENERAL INFORMATION: Information common to all events is covered in the first part of this bulletin.

SCHEMATIC OF TRAVEL TIMES AND DISTANCES



MAPPING: Southern sections mapped August 2017 from LIDAR data by Rui Antunes and José Batista; northern sections by Luděk Krtička and Martin Poklop.

NON-STANDARD SYMBOLS: The green X represents a distinct fallen tree.

TERRAIN: Hidden Lakes features a mixture of both large and small kame and kettle topographic features. Think lots of depressions! Take care when interpreting which directions are up and down on the hillsides. The map area comprises a mix of generally open pine and spruce forest with some deadfall. Some of the map is shown as light green which is generally quite runnable but can be variable. There is a network of trails through most of the map area, which are routinely used by mountain bikers. There will be many controls in a small area so be sure to check your codes!

HAZARDS: The COC Long and Middle arena has been known for years as 'party central' and as a result there is a lot of broken glass on the ground. We will be cleaning up the larger pieces but cannot guarantee to get it all – please wear footwear at all times in the arena.

Watch out for mountain bikers on the trails, as the area will not be closed to them.

During the COC Middle, all courses, except M85, M90, F80, F85 and F90, will cross the gravel road which is the access to the arena. Please be courteous to crossing runners when you are accessing the arena.

If we discover any other hazards in the few days leading up to the event (e.g. wasp nests), these will be marked off with out of bounds tape.

WARM-UP MAP/ROUTE TO THE START: On both days, as you leave the arena to go to the Start, pick-up a map showing the route to the Start. The recommended route will be marked with orange streamers hanging from vegetation or orange pin flags. This map will also indicate out-of-bounds areas en-route. There is limited

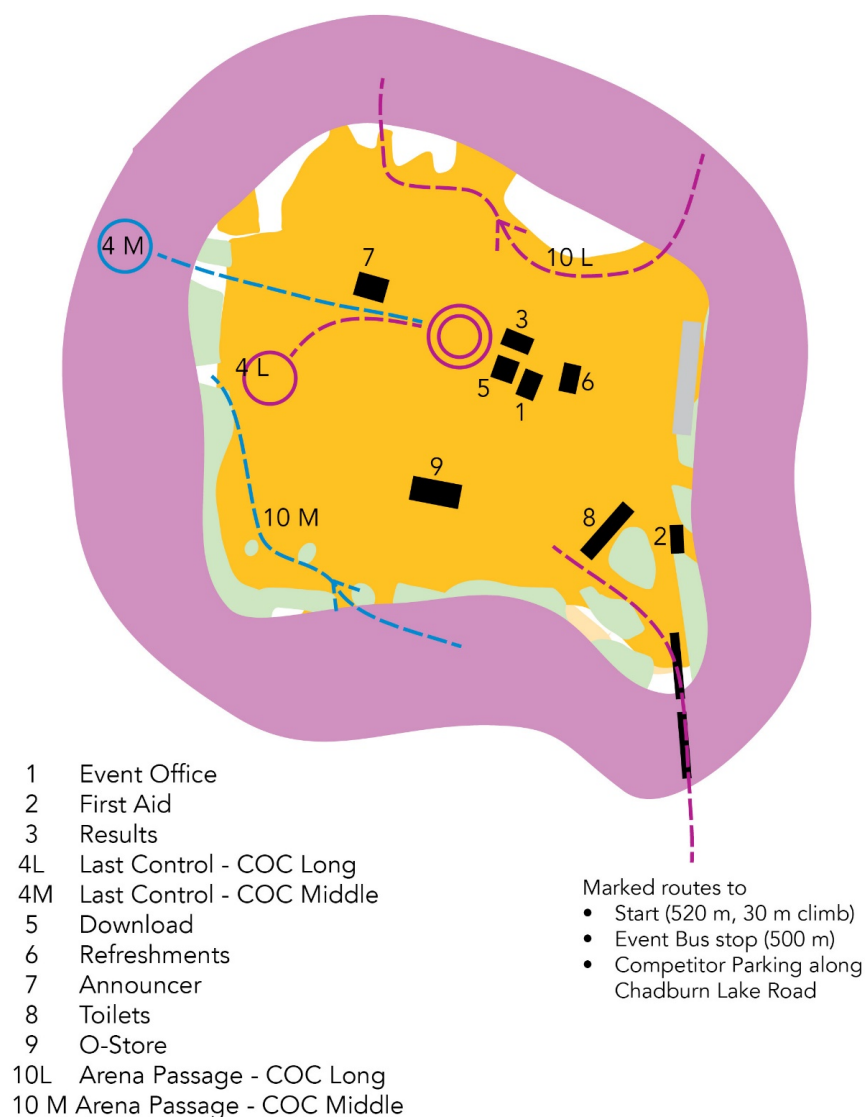
opportunity to warm-up on the way to the Start. Warm-up areas also include the arena and the gravel road to the arena – please watch out for runners on-course crossing the access road during the COC Middle.

REMOTE FINISH: On both days, the M85, M90, F80, F85, and F90 competitors will have a remote finish. The route from your last control to your finish will not be flagged. At your finish control, a volunteer will collect your competition map and give you another small map that will show you how to get back to the arena. Your competition time will stop at your finish control but you will still need to download in the arena. You do have the option of going to the GO control at the west side of the arena and coming up the finish chute with everyone else, but you will no longer be racing. This will be shown on the small map.

TOILETS: There will not be any toilets at the start nor en-route to the start. Please use the portable toilets in the arena.

CLOTHING DROP: There will not be a clothing drop.

ARENA MAP:



TRANSPORTATION:

On both days:

1. Competitors that selected event busing (B on their bib) will take the Event Shuttle directly from Whitehorse to the arena bus stop. From here, it is a 500m walk along a level gravel road.
2. All other competitors will drive to Chadburn Lake Road and follow the directions of the parking marshals. Parking will be in the Schwatka Lake boat launch and along one side of the Chadburn Lake Rd. The distance from your parked car to the arena-access road will be variable (up to 1.1 km). From here, it is a 500m walk along a level gravel road.

COC Long: Thursday August 23

COURSE PLANNER: Marg Ellis, Greater Vancouver Orienteering Club, Vancouver.

COURSE CONTROLLERS: Adrian Zissos and Don Bayly, Foothills Wanderers Orienteering Club, Calgary

FIRST START: 10:00

LAST START: 13:30

OPEN CLASS START TIMES: 10:00 -12:30

START INTERVAL: 3 minutes

COURSE CLOSURE: 16:30

MAXIMUM TIME ON COURSE: 180 minutes

ARENA LOCATION: 60.679 N, 135.012 W

ARENA PARKING LOCATION: 60.675 N, 135.017 W

PARKING LOCATION FOR SHUTTLE DIRECTLY FROM WHITEHORSE: 60.701 N, 135.048 W (Ball Diamonds, Robert Service Way, across from Robert Service Campground)

EVENT DETAILS:

Class	Course Length (km)	Climb (m)	# Controls	Map Scale	RWT (minutes)	# Water stations	Loose Control Description Size
F10 M10 Open1	3.2	90	17	7,500	30-35	1	50 X 145
F11-12 M11-12 Open2	3.2	125	17	7,500	30-35	1	50 X 145
F13-14 F15-16S M13-14 M15-16S Open 3	3.5	120	14	10,000	30-35	1	50 X 140
F15-16 M15-16	4.0	145	16	10,000	50-55	1	50 X 140

Open4							
F75 M75 M80	3.1	75	10	7,500	45-50	2	50 X 105
F80 F85 F90 M85 M90 Open5	1.6	70	10	7,500	50-55	1	50 X 110
F55	4.0	155	11	7,500	50-55	3	50 X 110
F17-20S F65 M17-20S Open6	3.8	155	10	7,500	50-55	2	50 X 110
M65	4.4	180	12	10,000	50-55	2	50 X 115
F45 Open7	4.0	145	10	10,000	50-55	1	50 X 105
M55	5.0	145	12	10,000	55-60	3	50 X 115
F17-18 F21S F35 Open8	4.7	130	13	10,000	55-60	3	30 X 130
M17-18 M21S M45	6.8	230	15	10,000	55-60	2	50 X 135
F19-20	6.8	230	15	15,000	55-60	2	50 X 135
F21E M19-20 M35	10.3	350	20	15,000	90-100	4	50 X 175
M21E	12.8	415	23	15,000	90-100	4	50 X 195

The contour interval on all maps is 5 metres.

MARKED ROUTES: On the COC Long, there will be a spectator leg for M21E, M19-20, F21E, and M35 competitors. Competitors must follow the taped route through the stadium.

MAP PAPER SIZE: All the COC Long maps will be on tabloid size paper (28x43 cm/11x17 inches).

DISTANCE TO THE START: The distance to the Start from the arena is 520 m and involves a steep climb of 30 m. Allow at least 15 minutes!

Competitors in F80, F85, F90, M85, M90 will be escorted as a group, along a longer but easier angled route (640m). These competitors should gather at a trail junction, 50m from the Bus Stop, on the gravel road to the arena, **at 10am!** A volunteer will meet you here to guide you, as a group, to the start area. Another volunteer will take your bags etc to the arena. This guided route is less steep than the main route to the start. However, if you choose, you may go to the arena and then to the start by the normal route.

AWARDS: The COC Long awards will be presented at 18:00 in Shipyards Park – plan to come early and enjoy the Fireweed Farmers Market.

COC Middle: Friday August 24

COURSE PLANNER: Marion Owen, Foothills Wanderers Orienteering Club, Calgary

COURSE CONTROLLER: Brian Ellis, Greater Vancouver Orienteering Club, Vancouver

FIRST START: 10:00

LAST START: 12:30

OPEN CLASS START TIMES: 10:00 -12:00

START INTERVAL: 2 minutes

COURSE CLOSURE: 14:30

MAXIMUM TIME ON COURSE: 120 minutes

ARENA LOCATION: 60.679 N, 135.012 W

ARENA PARKING LOCATION: 60.675 N, 135.017 W

PARKING LOCATION FOR SHUTTLE DIRECTLY FROM WHITEHORSE: 60.701 N, 135.048 W (Ball Diamonds, Robert Service Way, across from Robert Service Campground)

EVENT DETAILS:

Class	Course Length (km)	Climb (m)	# Controls	Map Scale	RWT (minutes)	Loose Control Description Size
F10 M10 Open1	1.9	40	12	7,500	20-25	50 X 140
F11-12 M11-12 Open2	2.4	45	12	7,500	20-25	50 X 120
F13-14 F15-16S M13-14 M15-16S Open 3	2.1	45	9	10,000	20-25	50 X 115
F15-16 M15-16	2.4	65	10	10,000	25-30	50 X 110

Open4						
F75 M75 M80 Open5	1.9	45	10	7,500	30-35	50 X 110
F80 F85 F90 M85 M90	1.1	30	7	7,500	30-35	50 X 100
F55	2.3	50	12	7,500	30-35	50 X 120
F17-20S F65 M17-20S Open6	2.0	60	11	7,500	30-35	50 X 120
M65	2.5	70	13	10,000	30-35	50 X 130
F45 Open7	2.5	60	12	10,000	30-35	50 X 120
M55	2.9	85	14	10,000	30-35	50 X 140
F35 Open8	2.7	60	14	10,000	30-35	50 X 140
F17-18 F21S M45	3.3	95	17	10,000	30-35	50 X 160
F 19-20 F 21E M17-18 M21S M35	3.9	130	19	10,000	30-35	50 X 180
M19-20 M21E	4.5	135	21	10,000	30-35	50 X 190

WATER STATIONS: there will be two water stations on the gravel road. This is crossed by all classes except M85, M90, F80, F85 and F90. The water is primarily for the elite classes, but any competitor may access it while in competition. The water cup symbol is printed on competition maps at the location of the water stations.

MAP PAPER SIZE: All the COC Middle maps will be on letter size paper (21.6cmx27.9 cm/8.5x11 inches).

CAUTION: The walk from Chadburn Lake Rd to the arena will pass the two water stations which are at the edge of the gravel road. This water is **only** for on-course competitors. Please move through this area quickly and watch out for competitors crossing!

START: there is one start area for all courses. The distance to the Start from the arena is 520 m and involves a steep climb of 30m. Allow at least 15 minutes!

Competitors in F80, F85, F90, M85, M90 will be escorted as a group, along a longer but easier angled route (640m). These competitors should gather at a trail junction, 50m from the Bus Stop, on the gravel road to the arena, **at 10am!** A volunteer will meet you here to guide you, as a group, to the start area. Another volunteer will take your bags etc to the arena. This guided route is less steep than the main route to the start. This route is not mandatory – you can choose to use the regular route to the start.

MARKED ROUTES: M10 and F10 will have one flagged route. This will be marked in the terrain by orange and white streamers, and will also be described in the Control Description sheet.

There will be a Spectator leg for F21E, F19-20, M17-18, M19-20, M21E, M21S, and M35 competitors, who must follow the taped route through the stadium.

AWARDS: The COC Middle medals will be awarded in the arena as soon as the results are finalized.

Summary of competitors received by 2018-07-31

TOTAL	573
Canada	286
USA	125
Switzerland	29
Great Britain	17
Czech	4
Portugal	2
Spain	2
Sweden	16
Finland	1
Denmark	15
Norway	12
Germany	8
France	1
Estonia	1
New Zealand	9
Australia	22
Austria	5
Hong Kong	8
Belarus	1
Latvia	4
Ireland	4
Italy	1