



## Open Noord Nederlands Kampioenschap 2020

### Information and regulations

*Laatst update: 29-1-2020*

#### Info

It's almost time for the 3<sup>rd</sup> edition of the ONNK 2020!

We hope you are as excited for this as we are, so let's make it a great race!  
Signups are now open and will close the 17<sup>th</sup> of February.

Our event will be held during a hobby and model fair, in the TT expo hall located near the famous TT circuit.

We currently have the location available for 3 days from Friday the 21<sup>st</sup> until Sunday the 23<sup>rd</sup>.  
On Friday we will have an open training once we finish building the track.

The contest will be held Saturday the 22<sup>nd</sup> (qualifiers) and Sunday the 23<sup>rd</sup> (knockouts and finals).

In this document you will find information on rules, location, catering and more. Please take time to carefully read through this document.

for questions please contact us by mail [info@dronevents.eu](mailto:info@dronevents.eu) or by private message on our facebook page.

See you all on Saturday!

#sendit!

**The DronEvents Foundation**

## Date

21<sup>st</sup> until the 23<sup>rd</sup> of February.

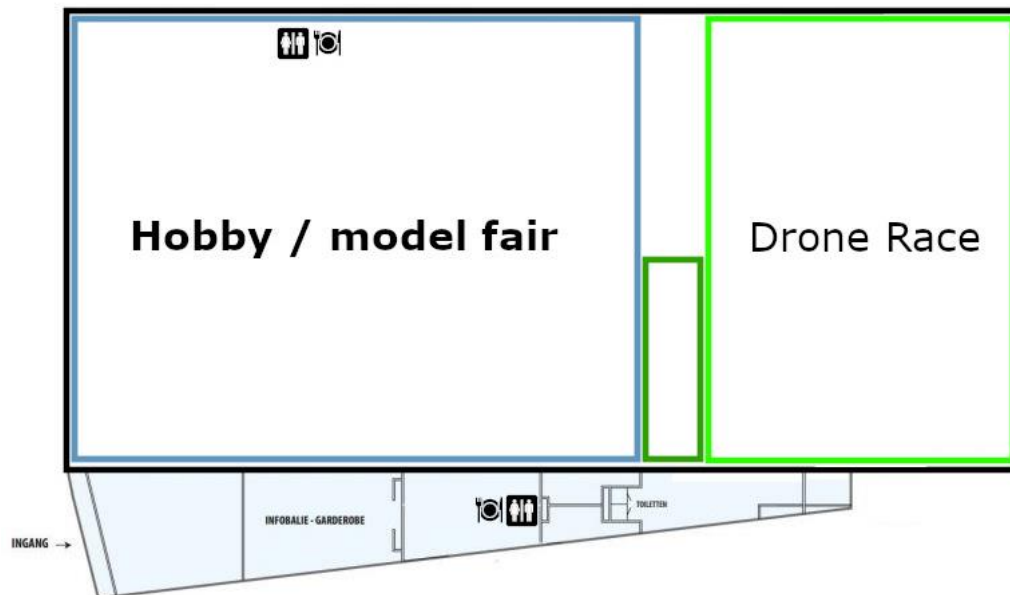
## Location

The race will take place at the TT Expo hall Assen.

<https://goo.gl/maps/KuMBU4YwsvshZ5eD8>

There is a big list with facilities, the most important ones:

- Toilets.
- 230v ( bring your own extension cabel!)
- No Tables and chairs. (bring your own!)
- extensive catering.



**Parking** : There is a 3,00 parking fee outside of the TT expo hall.

<https://goo.gl/maps/Aajpw3VJSL5JM4Qu9>

## Food and drinks

During the fair there are 2 food courts located in the TT expo hall.

## Time Table

Friday.

10:00 – 12:00 Track build.

12:00 – 14:00 Fun fly / Track build.

14:00 – 16:00 Open Training.

Saturday.

09:00 – 09:45 Arrival / registration / gear check (failsafe etc.)

09:45 – 10:00 Track walk

10:00 – 16:00 Qualifiers

Sunday.

09:00 – 09:45 Arrival / registration / gear check (failsafe etc.)

09:45 – 10:00 Track walk

10:00 – 12:00 Last chance to qualify

12:00 – 16:00 Knockout / Finals

## Registration and gear check

Doors are open at 09:00 AM. Be ready to have your drones checked. We will test the failsafe and check VTX power(maximum 25mW), we can perform random checks during the race and if it is determined that you are outputting a power level of more than 25mW, you will be disqualified.

At the failsafe check make sure that your props have been removed (do this at home already, so that checking also runs smoothly) and that your failsafe is set to disarm the motors within one second.

If you use a TBS Crossfire, update your firmware to v2.41 and set it to 25mW. You may use telemetry but if there are any failsafe issues during the event we can demand ALL pilots to disable telemetry.

Every pilot must have insurance to fly. Please show your insurance certificate for drone inflicted damage. See also the quadcopter requirements below.

## Race Flying Format

### Practice and Qualifying

There are 40 pilots divided into 10 heats of 4 pilots. There will be 3 minutes per heat, with a minimum of 3 laps if you want to set a valid time. **Max 2 minutes** is held between races!

During the qualifications we will use Raceband 1 – Raceband 3 – Raceband 6 – Raceband 8

Alternatively when we decide to grow heats:

During the qualifications we could also use IMD6c channels those are: R1 (5658), R2 (5695), F2 (5760), F4 (5800), R7/F8 (5880), and R8 (5917)

There will be no practice heat: PDRNL national rankings will determine your position for qualifying rounds. Pilots are divided according to the skill level: the fastest 8 are divided over heat 1-8, and so on. There will be approximately 8 qualifying rounds. Your qualifying time is your top 3 consecutive times.

Times, rankings and the live stream will be available on: <http://dronevents.livefpv.com>

### Knock-out 1: quarter-finales

The top 16 pilots make it to the quarter finals. Pilots are classified as in the qualification phase: the top 4 pilots get divided over heat 1 to 4 and so on. Three laps will be flown. During the quarterfinals there will be 4 heats and each heat is flown 2 times.

1<sup>st</sup> place = 3 points

2<sup>nd</sup> place = 2 points

3<sup>rd</sup> place = 1 point

4<sup>th</sup> place = 0 points

Per heat the two pilots with the highest score after the 2 rounds will continue to the semi-finals. If there is a tie, the pilot with the fastest top three consecutive during the quarter-finals will rank higher.

### Knockout 2: semi-finals

8 pilots make it to the semi-finals. Pilots are classified as in the qualification phase: top 2 pilots go to heats 1 and 2 and so on. Three laps will be flown. During the semi-finals there will be flown in 2 heats and each heat is flown 2 times.

1<sup>st</sup> place = 3 points

2<sup>nd</sup> place = 2 points

3<sup>rd</sup> place = 1 point

4<sup>th</sup> place = 0 points

Per heat the pilots 2 with the highest score after 2 rounds will continue to the finals. If there is a tie, the pilot with the fastest top three consecutive during the semi-finals will rank higher.

## Finals: chase the ace

The 4 remaining pilots will battle for first place in the chase the ace format. In each round, three laps will be flown. The first pilot who win two heats will be the winner of the day.

For places two to four, points totals will be calculated as in the quarter-finals and semi-finals. If there is a tie, the pilot with the fastest top three consecutive during the finals will rank higher.

The finals will have a minimum of two rounds and a maximum of five rounds. If no pilot has two wins, first place will also be determined according to points totals.

## Timing system

For timing the Immersion RC LapRF 8-way is being used. Please make sure you are using a good quality VTX and antenna for optimal performance. The frequencies used for the race are raceband 1, 3, 6, and 8, make sure your VTX supports those channels.

## Quadcopter requirements

- **Frame dimensions:** Maximum 350 mm
- **Props:** Maximum 6"
- **Batteries:** Maximum 6s HV. It is not allowed to charge more than 4.35v per cell
- **VTX:** Maximum 25mW. Must support raceband frequencies. IRC tamps or TBS VTX advised.
- **Timing:** Immersion RC LapRF 8-way (Good quality VTX and antenna advised)
- **LEDS:** A minimum of three LEDs is mandatory on your quad. Preferably ones you change the color of.
- **RC Link:** 2.4 GHz or a TBS Crossfires at 868 MHz at 25mW (Firmware 2.41) telemetry is allowed but In case of failsafe issues we can demand all pilots to switch off telemetry.
- **Video format:** PAL or NTSC cameras are both allowed.
- **Insurance:** Every pilot must have insurance to fly. Please show your insurance certificate for drone inflicted damage.

## Race Rules/Infringements & Event Protocol

- The timing of events will be strict. A race lasts 3 minutes and there will be **2 minutes** between races. If you have technical problems and you cannot take off at the start of the race, you must leave the track with your quad and forfeit the lap
- Every pilot is the spotter for the previous race. Spotters must be on time for the start of the race. If you are not ready in the pilot area at the start of the race you have to spot you are NOT allowed to start in your heat. Every pilot must be ready and waiting at the entrance to the pilot area before the race they have to spot.
- Have your quad land as quickly and as safely as possible in the designated landing zone after your race, so that we can prepare for the next race.
- Please pick up your quad after each race and unplug your battery as quickly as possible. If your quad is stuck in the netting and cannot be removed in time, the quad MUST be unplugged or put into PIT-Mode and can be removed from the nets after the race
- If a lap does not cover the entire length of track at the end of the race, the incomplete lap will not be counted in the score.
- Participants who take advantage of a jumpstart will immediately lose this advantage by waiting next to the starting line until the other quads have passed (and only if entering again can take place safely).
- Turtle mode and launch control are allowed, provided that other quads are not obstructed and that your maneuver will not damage the track or cabling.
- Please keep the race management and pit lane free of obstacles to enable the race director to see and hear everything that is happening and can communicate with the pilots if necessary.
- Pilots must be able to fly their race undisturbed at all times.
- Flying outside the designated area will immediately lead to disqualification for the rest of the competition.
- Failure to comply with safety rules on or off the track will result in immediate disqualification for the rest of the competition.
- We will use a split screen system to tune into your racing frequencies and record DVR. In the event of a dispute, the pilots are responsible for supplying their own DVR footage to the Race Director
- We can check VTX power output during the race. Every drone who transmits a signal stronger than 25 MW will be disqualified.

- Every participant must be familiarized with changing VTX channel quickly because it will be necessary during the race. If you are not on the right frequency on time, this means that you are not allowed to fly.
- Do NOT activate video transmitters unless you are racing. Activating video transmitters will result in immediate disqualification for the rest of the competition.
- Any act of cheating and/or match fixing by intentionally losing or tampering with video channels and/or output power will lead to being disqualified from the competition.
- There will be no re-starts for midair collisions if it happened after the first gate (timing gate). If you have video problems, we must see corresponding evidence on our video equipment before considering a re-run.
- Remember that we are in reflective location, so don't expect fantastic video. We recommend using an ImmersionRC RapidFire or Clearview. Ground stations and/or modules are NOT provided
- Entering the race course is strictly forbidden unless a member of the racing staff has given permission
- Only charge your batteries in the specified charging area and follow all safety precautions.
- Please respect the Pitts Areas, keep them clean and tidy and do not take up too much space.
- Do not leave trash anywhere.
- The DronEvents foundation cannot be held responsible for loss, damage or theft of your property.
- For everything that is not explicitly mentioned in this document, we rely on version 0.5 of the national Dutch drone racing regulations of Platform Drone Racing NL. These can be found at: [http://bit.ly/pdrnl\\_reglement\\_2019](http://bit.ly/pdrnl_reglement_2019)