Part 3

Road Racing

Contents

3a Overview

New text, not from the 2014 rulebook is in **boldface**. Text that we suggest be deleted is in *italic*. Since the text has been reorganized, the original 2014 sections are marked with a boxed reference, such as $\boxed{3.4}$. Meta-text, intended for the rulebook editors is boxed.

3.1 Definition

Road races are longer distance races held on paved roads or paved bike paths. These rules specifically apply to 100k, Marathon, and 10k races, but may also be applied to other road races, such as a Time Trial or a Criterium.

$\boxed{3.1}$ *These are races held usually on roadways or bike paths, generally for longer distances than our events on the track. All riders may race together and be separated by age group afterward*

$\boxed{3.5}$ *Traditional road race distances have been:*

- *10k with Unlimited and Standard 24" classes, and*
- *Full Marathon (42.195k) with Unlimited and possibly Standard 29" classes.*

However, any distances or wheelsize classes can be used for Road Races.

3.2 Rider Summary

This section is intended as an overview of the rules, but does not substitute for the actual rules.

- **You must wear shoes, knee pads, gloves, and helmet.**
- **Personal music systems are not allowed for any races on public roads where there may be motorized traffic.**
- **Water and food stations are at the discretion of the host.**
- **Road racing events have wheel size, crank length, and gearing requirements that you need to be aware of.**
- **You must be on time for the start of your race.**
- **Be aware of the rules regarding passing, dismounts, and illegal riding.**

3b Competitor Rules

3.3 Safety

$\boxed{3.3}$ Riders must wear shoes, kneepads, gloves and a helmet (see definitions in chapter 1d).

$\boxed{3.2}$ Personal music systems are not allowed for any races on public roads where there may be motorized traffic.

$\boxed{3.3}$ *Elbow pads are also good considerations for safe unicycle racing.*

Water and food are the responsibility of the rider. Hosts may offer food and water stations at their discretion.

$\boxed{3.2}$*Water/food stations are recommended.*

3.4 Unicycles

> This section needs to be addressed in committee. Probably, unlimited needs to be allowed, here. The definitions in section 1d need to be updated, accordingly.

$\boxed{3.6}$ Only standard unicycles may be used. Riders may use different unicycles for different racing events, as long as all comply with the rules for events in which they are entered.

3.4.1 Wheel Size and Crank Arm Limit

$\boxed{3.6.1}$

- For a "Standard 29" Unicycle" the outside diameter of the tire may not be larger than 768mm and there is no minimum crank arm limit. No gearing may be used.
- For a "Standard 24" Unicycle" the outside diameter of the tire may not be larger than 618mm and crank arms may be no shorter than 125mm. No gearing may be used.
- For a "Standard 20" Unicycle" the outside diameter of the tire may not be larger than 518mm and crank arms may be no shorter than 100mm. No gearing may be used.

24" and smaller wheels are not allowed for races longer than 20km without express permission of the racing director.

3.5 Rider Identification

> Something probably needs to be said about rider number or the wearing of a chip. This seems to be missing from the existing rules.

3.6 Protests

Protests will be handled, as outlined in 1.10.

3.7 Event Flow

3.7.1 Riders Must Be Ready

3.9.1 Riders must be ready when called for their races. Riders not at the start line when their race begins may lose their chance to participate. The Starter will decide when to stop waiting, remembering to consider language barriers, and the fact that some riders may be slow because they are helping run the convention.

3.7.2 Starting

3.9 Riders start mounted, holding onto a starting post or other support. The Starter will give a four-count start, for example, "One, two, three, BANG!" Alternatively, an electronic starter may be used.

3.9 Riders start with the fronts of their tires (forwardmost part of wheel) behind the nearest edge of the starting line. Rolling starts are not permitted in any road race. However, riders may start from behind the starting line if they wish, provided all other starting rules are followed. Riders may lean before the gun fires, but their wheels may not move forward before the gun fires. Rolling back is allowed, but not forward. Riders may place starting posts in the location most comfortable for them, as long as it doesn't interfere with other riders.

A rider's starting time is taken as when their heat begins (when the gun goes off) regardless of when they actually cross the starting line.

3.7.3 False Starts

3.10 A false start occurs if a rider's wheel moves forward before the start signal, or if one or more riders are forced to dismount due to interference from another rider or other source.

False starts will be handled as determined by the host, and as described in section 3.19.

3.7.4 Passing

3.11.1 An overtaking rider must pass on the outside, unless there is enough room to safely pass on the inside. Riders passing on the inside are responsible for any fouls that may take place as a result. No physical contact between riders is allowed. The slower rider must maintain a reasonably straight course, and not interfere with the faster rider.

3.7.5 Dismounts

In Road Racing

3.11.2 Dismounting and remounting is allowed. If a rider is forced to dismount due to a fall by the rider immediately in front, it is considered part of the race, and both riders should remount and continue.

3.7.6 Illegal Riding

This includes

3.11.3 Illegal riding includes intentionally interfering in any way with another rider, deliberately crossing in front of another rider to prevent him or her from moving on, deliberately blocking another rider from passing, or distracting another rider with the intention of causing a dismount.

3.7.7 Finishes

3.12 Finish times are determined when the front of the tire first crosses the vertical plane of the nearest edge of the finish line.

Riders are always timed by their wheels, not by outstretched bodies. If riders do not cross the line in control, they are awarded a 5 second penalty to their time. "Control" is defined by the rearmost part of the wheel crossing completely over the vertical finish plane (as defined above) with the rider having both feet on the pedals. (Note: a rider is not considered in control if the unicycle crosses the finish line independent of the rider.

The finish time is still measured by when the wheel crosses the vertical finish plane and the 5 second penalty is applied.)

In the case where a rider is finishing with a broken unicycle, the rider must bring at minimum the wheel to the finish line, and time is still taken when the wheel crosses the finish line. The 5 second penalty is applied.

3.7.8 Optional Race-End Cut-Off Time

There may be a race cut-off time, as communicated by the host.

3c Judges and Officials Rules

We think that the officials for each event need to be specified in event chapter, not in chapter 1. For this event, we have taken the approach that the rules will specify the scope of responsibility for the official.

3.8 Race Director

This and the next section were based on text from Chapter 1, reworded to make it specific to road racing.

The Race Director is the head organizer and administrator of road race events. With the Convention Host, the Race Director determines the course, obtains permis, interfaces with the community, and determines the system used to run the event. The Race Director is responsible for the logistics, equipment for all road racing events. With the Referee, the Race Director is in charge of keeping events running on schedule, and answers all questions not pertaining to rules and judging. The Race Director is the highest authority on everything to do with the road race events, except for decisions on rules and results.

3.9 Referee

The Referee is the head racing official, whose primary job is to make sure the competitors follow the rules. The Referee makes all final decisions regarding rule infractions. The Referee is responsible for resolving protests.

3.9.1 Specific Consequences

 3.3 *The Referee has final say on whether a rider's safety equipment is sufficient. The Starter will remove from the starting line-up any riders not properly equipped to race, including riders with dangerously loose shoelaces.*

 3.11.2 [Regarding forced dismounts] The Referee can override this rule if intentional interference is observed.

3.11.3 A rider who is forced to dismount due to interference by another rider may file a protest immediately at the end of the race. Riders who intentionally interfere with other riders may receive from the Referee a warning, a loss of placement (given the next lower finishing place), disqualification from that race/event, or suspension from all races.

3d Event Organizer Rules

3.10 Venue

Venue requirements go here. Does a road race need to be on pavement? Do roads need to be closed to other traffic? How far can it be from Unicon headquarters?

3.11 Officials

Does the IUF require particular officials for these events? The following list is a start at defining officials:

- **Race Director**
- **Referee**
- **Starter**
- **Timer**
- **Recorder**
- **Check-In Official (not currently defined)**

3.12 Communication

5.10 The host must announce the false start method at least two months before the event.

Some thoughts on additional required communication:

- **heat assignment/seeding method**
- **false start method**
- **cut-off time**
- **age groups**
- **starting method**
- **whether the event qualifies for a world record**
- **timing method?**

- **course map?**

1.4.2 Details of all non-track racing events, or other events with unique courses or details must be published as soon as they are known. This is to provide competitors with the information they need to train, and to help them prepare the appropriate unicycles. These are major needs for attendees from far away. Necessary details depend on the event, but include things like course length, elevation and elevation change, steepness, level of terrain difficulty, amount of turns, riding surfaces, course width, etc. Maps should be provided when possible. While sometimes courses cannot be planned until weeks or days before the convention, as soon as they are known the details must be posted to the convention web site and/or all places where convention information is posted. It is acceptable to publish tentative courses while waiting for permits to be approved, etc.

3.13 Age Groups

3.4 The following age groups are the minimum required by the IUF to be offered at the time of registration for any Road Racing discipline: 0-13, 14-18, 19-29, 30-UP. For any discipline for which there is a Standard 24" wheelsize category, also an age group 0-10 (20") must be offered.

Convention hosts are free to offer more age groups, and often do. For example, a full range of offered age groups might look like 0-8 (20"), 9- 10 (20"), 0-12, 13-14, 15-16, 17-18, 19-29, 30-39, 40-49, 50-59, 60-UP. All age groups must be offered as male and female age group.

3.14 Practice

1.4.3 If the course is open for practice to all riders for at least 7 days leading up to the event, then there are no restrictions on who can compete. If the course is not open for practice until the day of the event, then anyone who has pre-ridden the course is not allowed to compete. Organizers must therefore ensure that course marking and set-up are done by non-competing staff/volunteers.

3.15 Race Configuration

3.1 All riders may race together and be separated by age group afterward. 3.2 Riders can be divided by age and/or unicycle type, such as 24" and 29" track unicycles, Standard (any size wheel and cranks), and Unlimited (see definition in chapter 1d).

3.16 Starting Configuration

| 3.7 | Line-up order and heats must be assigned prior to the race. There are three allowable formats for designating the starting configuration of a Road Race: individual start (section 3.16.1), heat start (section 3.16.2), or mass start (section 3.16.3).

To determine which start configuration to use, read the following rules from top to bottom. Once you have an outcome, *disregard* the remaining rules.

- If this is an "Individual Time Trial" format race, use individual start.
- If the course is too narrow to allow for racers to safely and fairly start in heats, use individual start.
- If you cannot safely start five or more riders across, use individual start.
- If the starting field consists of 30 riders or less, use a mass start.
- If the course does not allow for ten riders to ride abreast for at least 500m before the course narrows, use heats of 12 or more riders.
- If the starting field consists of more than 50 riders, use heats of 20 or more riders.
- In all other cases, use a mass start.

Standard racers should always start separately from Unlimited racers, also in the case of a mass start or heat starts. Unlimited racers should start first, unless there is no risk that Unlimited riders have to pass standard riders (for example they race on different days).

In the sections below, "fastest rider" means "fastest rider by seed time." Seed time is defined as an estimated finish time, preferably based on past performance in similar event(s). If no seed time is submitted by the rider or their coach, the organisation can assign a seed time.

3.16.1 Individual Start

| 3.7.2 | Each rider is individually started at a fixed time interval, such as every 20 or 30 seconds. Riders are sorted by speed with the fastest rider going first. (Except in the case of an Individual Time Trial, where the race can start with either the fastest or slowest rider.)

3.16.2 Heat Start

| 3.7.3 | Heats should consist of at least 12 riders, either male or female (no mixed heats). Heats are sorted by speed with the fastest heat going first. Heats should be started every one to five minutes.

The following example describes how this can be done: The first three heats might contain the fastest men, then a heat of the fastest women who are of proportionate speed with the third heat of men. This format makes sure that the top women start

together while still giving them the opportunity to race and pace off of men of similar speed.

3.16.3 Mass Start

$\boxed{3.7.4}$ A mass start is a start in which all racers of a certain class (such as Standard or Unlimited) start together. Genders start at the same time.

3.17 Starting Order

$\boxed{3.7.1}$ The goal in determining the starting order is to sort racers fairly by speed while still making sure that genders race amongst themselves. Unless otherwise noted below, the fastest riders start first, and also within a start group (heat or mass start), riders should be positioned in the line-up by speed with the fastest in front. Starting order can be determined by seed time, or from the results of a previous Road Race in that competition. For example, if the Marathon follows the 10k, the results of the 10k can be used to determine the starting order for the Marathon. In the case that a racer does not have a seed time, and is signed up for a particular event (such as the Marathon) and did not participate in the previous race (such as the 10k), the Racing Clerk has the right to assign a starting position where they see fit.

3.18 Starter

$\boxed{3.9}$ There should be about 3/4 second between each element in the count, with the same amount of time between each of them. This allows riders to predict the timing of the gun, for a fair start. Starters should practice this before the races begin. Timing of the count is very important for an accurate start. This count can be in the local language, or a language agreed upon before competition starts.

As an alternative a Startbeep apparatus can be used. In that case we have a six-count start. For example: "beep - beep - beep - beep - beep - buup!" The inter-beep timing is one second. The first 5 beeps have all the same frequency. The final tone (buup) has a higher frequency, so that the racer can easily distinguish this tone from the rest.

3.19 False Starts

$\boxed{3.10}$ There are several options on how to deal with false starts:

- **One False Start Allowed Per Rider:** In case of a false start, the heat is restarted. Any rider(s) who caused their personal first false start may start again. Any rider(s) causing their personal second false start are disqualified.

- **One False Start Allowed Per Heat:** In case of a false start, the heat is restarted. For the first false start of a particular heat, all riders may start again. Thereafter, any rider(s) causing a false start are disqualified.
- **Time Penalty:** In case of a false start, the heat is not restarted. If a false start occurs by one or multiple riders, these riders receive a time penalty (such as 10 seconds).

If a heat has to be restarted, the Starter will immediately recall the riders, for example by firing a gun or blowing a whistle or any other clear and pre-defined signal.

If the race is started using individual starts or heat starts (see sections 3.16.1 and 3.16.2) a time penalty is the recommended option. In the case of a mass start (section 3.16.3), any option is viable.

3.20 Finishes

3.12 If finish times for a race are timed using microchips or other non-photographic electronic equipment, finish order must be verified by photo timing equipment if the finishers are within 0.1 seconds of each other. Also, in the case where a world record is suspected of being set, the time must be verified with photo timing equipment.

3.20.1 Optional Race-End Cut-Off Time

3.13 It may be necessary to have a maximum time limit for long races, to keep events on schedule. When this is planned in advance, it must be advertised as early as possible, so attending riders will know of the limit. Additionally, at the discretion of the Racing Director, a race cut-off time may be set on the day of or during an event. The purpose of this is to allow things to move on if all but a few slow racers are still on the course. These cut-offs need not be announced in advance. At the cut-off time, any racers who have not finished will be listed as incomplete (no time recorded, or same cut-off time recorded for all). Optionally, if there is no more than one person on the course per age category and awards are at stake, they can be given the last place in the finishing order. But if each participating age category has had finishers for all available awards (no awards at stake), there is no need to wait.

3.21 Special Marathon Events

3.8 Exceptions from the default rules may be allowed for a marathon race that is embedded in a big city marathon (such as Düsseldorf Marathon). This allows the unicycling organizer to follow some requirements of the main marathon organizer in order for the unicycling marathon to fit within the larger event.

The following exceptions to the rules may be made:

- Mass start / Group start (Mass start could be forced by the main host for schedule requirements)
- Start groups do not have to be per gender and/or wheel size
- Netto times (time from when the rider's wheel crosses the start line) can be used for placements while the Brutto time (time from when the race is started) counts for Records.

3.22 Race Distances and Distance Measurement

3.22.1 Distance Measurement for Traditional Distances

3.5.1 In the case where a traditional race distance is used (such as 10k or Marathon—42.195k), the course must be accurately measured along the shortest possible path. The course must be guaranteed to be no shorter than the advertised distance.

The following procedure is acceptable for accuracy. A more accurate method is of course allowed.

1. Set out a calibration course on straight, flat asphalt, with a minimum length of 100 meters, using a steel measuring tape of 5 meters or longer.
2. Ride the calibration course at least once with a bike or unicycle (minimum wheel-size 24"). Ride normally, without too much wobble, and at normal speed. Take care that mounting and dismounting don't cause the wheel to swerve, or be lifted from the surface. Carefully count the number of wheel revolutions required to ride the calibration course. Include partial wheel revolutions (for example through counting the number of spokes passed for the last partial revolution).
3. Calculate the wheel rollout (meters per revolution) from step 2.
4. If you are going to use a cycle computer: enter the wheel rollout value to the nearest millimeter in a reliable cycle computer with a wheel sensor (such as a magnet).
5. Fit the cycle computer, or a wheel revolution counter, to the same bike or unicycle used in Step 2.
6. Ride the actual race course, following the shortest possible path. Take care to ride in the same way as in step 2.
7. Read the distance from the cycle computer, or calculate from wheel revolutions and wheel rollout.
8. Calculate the applicable safety margin by adding up (1) 0.4% of the measured distance, and (2) the resolution of the cycle computer distance readout. **Example:** if your cycle computer shows $10.15\,\text{km}$, the safety margin is $0.4\% \cdot 10.15\,\text{km} + 0.01\,\text{km} = 0.0506\,\text{km} = 50.6\,\text{m}$. **Note:** you can skip (2) if you use a wheel revolution counter that can resolve single wheel revolutions.
9. Add the safety margin to the actual course (for example shift the start and/or finish line), to guarantee that the course is at least the advertised distance.

Note that Steps 2 through 7 must be done without breaks. The same rider should ride the calibration course and the race course. The tire pressure should not be altered in the mean time.

3.22.2 Distance Measurement for Other Distances

3.5.2 In the case where a non-traditional race distance is used (such as any distance other than 10k or 42.195k), the course must be measured with an accuracy of plus or minus 3% or better. **Example:** if a race is advertised as 100 km, the actual distance must be between 97 and 103 km. A good consumer-type GPS unit is acceptible, provided the track shows continuous reception of suffucient satellites (no 'stray' data points, or missing points). Also acceptable is the Distance Measurement Tool of Google Maps. A car odometer, on the other hand, might easily be off by more than 3%, and is therefore not acceptable unless you know how to correct it. Obviously, using a more accurate measurement is allowed, such as the method described for 'traditional distances"'.