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## Speed Skiing Competitions

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### 1 Organisation

#### 1.1 The Race Committee

The race committee, appointed by the Organizing Committee, is composed of the following:

- the [Chief of Race](#)<sup>1</sup>
- the [Chief of Course](#)
- the Chief of Timing and Calculations
- the Race Secretary
- the Race Doctor

#### 1.1.1 Special Duties of the Chief of Race

In addition to the duties laid down in art 603.3.1, the [Chief of Race](#) is particularly responsible for the competitors' safety.

#### 1.2 The Jury

The Jury is composed as specified in art 603.4

#### 1.3 The Technical Delegate (TD)

##### 1.3.1 Assignment

For FIS World Cup Speed Skiing Competitions, TDs are appointed by the Sub-Committee for Speed Skiing and New Events. For FIS races, TDs are approved by the Sub-Committee for Speed Skiing and New Events on proposal of the organizing National ski Associations.

##### 1.3.2 The duties of the TD are defined in art 603.4.9

#### 1.4 Medical Check-up (art. 220, 221)

#### 1.5 Team Captain's Meetings

Team Captains' meetings are run according to art 218.

#### 1.6 Duration of Competition

A FIS race will be planned to take place over a period of three days. The first day of the event must be devoted to training. Following two days will be given over to racing: No reserve day. In no circumstances will the training day be considered as part of the race. In exceptional circumstances, if the track has been unusable until the reserve day, then a training run (with timing) must be held before the competition runs. The start point for the first competition run must be the same as that for the training run. Under these conditions, the event may be accepted for homologation provided a detailed report is submitted by the TD (art 624.3)

### 2 The Course

#### 2.1 Homologation

Each speed track must be homologated as defined in art 650. In addition, the homologation reports have to specify the potential speed of the track and his category:

- track faster than 180 kph: "A course" for FIS World Cup and FIS races.
- track slower than 180 kph: "B course" for FIS races.

## 2.2 The Speed Track

### 2.2.1 From the top to the bottom the track is made up of three sections:

- the starting track provides at least three starting points spaced out along its length.
- the speed track, of which the last 100 meters will be used as the basis for measuring the time of the competitor. This last section must be measured exactly (to +/- 1cm), and checked periodically to ensure that the calculations remain valid.
- the deceleration and breaking track, which must provide sufficient length to ensure the safety of the racers in relation to the maximum speed of the speed track. It must become progressively less steep, and must finish with a slope of not more than 6% or, preferably, with a counterslope.

### 2.2.2 The speed track must have a minimum width of 30 m at the timing area, the whole of which width must have a particularly thorough preparation to ensure that it is perfectly smooth. Fall zones, at least 20 m wide, must be prepared on both sides, and must kept free of all obstacles. The areas reserved for the Jury, officials and the timekeeping, must be located outside the safety areas.

### 2.2.3 The widths of the speed track defined above must be strictly adhered to throughout the timing area. The starting track may be narrower, and get progressively wider until it enters the speed track. The homologation documents will specify the progressive widths of this track.

## 2.3 Track Markings

### 2.3.1 The speed track must be marked at regular intervals from the top to the bottom, as follows:

#### 2.3.1.1 Acceleration zone: marked by green flags on both sides.

#### 2.3.1.2 Timing zone (100 m long): marked by red flags on both sides, placed more frequently than the flags in the acceleration zone. The end of the timing zone must be marked by a red coloured line on the snow across the speed track.

#### 2.3.1.3 Deceleration and braking zone: marked by green flags on both sides spaced at the same interval as those in the acceleration zone. For safety reasons, a green coloured braking line must be marked on the

snow across the speed track at the start of this zone. Competitors may not brake or turn before crossing this line.

2.3.1.4 The safety zone (i.e. the track plus the full fall zones as defined in art 2.2.2) must be marked out with blue flags.

2.3.2 The Jury may authorize an appropriate alternative to paper flags for marking the track.

### 3 Technical Organisation

#### 3.1 Windspeed Measurement

3.1.1 If the windspeed increases sufficiently to cause the competitors to deviate from their course and distort the results (25 kph or more), the Jury must stop the current run, note the registered wind speed and publish it in the official bulletin for the day.

3.1.2 Windsocks, which are clearly visible from the start, and an anemometer for measuring windspeed must be positioned at the edge of the safety area, level with the top of the timing zone.

3.2 Communication/Radios  
see art. 603.4.8

#### 3.3 Timekeeping

3.3.1 Timekeeping is carried out with the aid of a fixed time clock capable of an accuracy of 1/1000th of a second, and controlled by photo-electric cells placed at the entrance and the exit of the 100 m timing zone (art 2.3.1.2). The supports for the photo-electric cells must be installed by a survey measurement expert authorized by the Jury. Speeds will be published from the distance and timing data, and will be calculated in kph to 2 decimal places (i.e. to 1/100th of 1 kph).

3.3.2 Photo-electric cells  
Each photo-electric installation consists of:

- a transmitter/receiver installation
- a reflector facing the transmitter/receiver
- a duplicate system, operating on a totally independant circuit, where the transmitter/receiver and the reflector are fixed on the same supports and in the same vertical plane as the primary timing system. The reference time is supplied by the upper cells.

3.3.3 The entirety of all photo-electric installations must be placed a minimum 1 m outside the timing track.

3.3.4 The transmitter/receivers and the reflectors must be protected with snow- or water-proof padded covers to avoid freezing. They must be

shaped in order to avoid any danger to competitors and to be shielded from reflected light.

3.3.5 Timing equipment must be fully operational and used during the training.

### 3.4 The Starting Points

3.4.1 On the first day of training, the Jury will decide on the lowest and highest start points for the competition. The last start point reached on any day must be used as the start point for the first run on the following day's competition. All start points must be marked with consecutively numbered cards, the lowest start point being number 1. In case of force majeure the Jury may make an exception.

3.4.2 At any point in the competition, if weather conditions so dictate, the Jury may lower a start point, even if a previous start was situated at a higher point.

3.4.3 The difference in maximum speed between 2 consecutive runs should not exceed 15 kph, and start points should be set accordingly.

3.4.4 The last start point for a FIS race must be set so that the maximum speed on the run does not exceed 200 kph. Any subsequent runs in the competition will then start from the same start point. When placing the start position the TD must pay attention to the 200 KPH maximum speed limit.

3.4.5 Poles or barriers will be used to make a start line at each start point, denoting the highest start limit for that run.

### 3.5 Starting Order

3.5.1 The starting order of competitors is determined according to art 621, the order is determined from the valid FIS Speed points list, with the competitors having the best 15 points being drawn (1st serie) and the remaining competitors being seeded in increasing order of their points (2nd serie).

3.5.2 For practical reasons, the Jury may allow racers to keep the same start numbers for the whole of the competition, whatever the starting order may be in each run.

3.5.3 Ladies and men will have different starting order. Ladies will start before men in all runs.

#### 3.5.4 Forerunners

Whenever possible, the race Organizing Committee must provide a minimum of four qualified forerunners for the competition; otherwise for the first run(s), a minimum of four forerunners will be drawn out of

the last 15 competitors on the start list. In the final runs, the forerunners will be the four highest placed competitors among those not selected to compete in that run. Their times and speeds may be announced, but not published in the official results.

- 3.5.5 The start will take place in the order decided by the draw (art. 3.5.1) on both the training day and the first competition day.
- 3.5.6 On following days, the starting order is determined by the best speed obtained by each competitor on the previous day. For the first 15 places, the running order is reversed, with the remaining competitors running in order from 16th place (art 621.10). This start order remains the same throughout the whole day.
- 3.5.7 The number of competitors allowed to start on the second and subsequent days runs may be progressively reduced up to 30 male and 8 female competitors in the finalrun, by the Jury and if the number of entries or conditions on the track necessitate this. The competitors will be informed through the bulletin or, in case of force majeure, by the Jury before a run.
- 3.6. Start Times  
They will be published, for each run, in the daily bulletin.
- 3.7 Number of Runs  
All runs must be timed, and all times count towards the final results. The maximum number of runs is 3 per day.
- 3.8 Start Procedures
  - 3.8.1 A competitor may start anywhere on the acceleration track below the start line but, in no case may this line be crossed by his skis at the time of his start.
  - 3.8.2 The starter may only give the start signal after receiving the "Course Clear" signal from the Chief of Race or from the Chief of Course.
  - 3.8.3 After the starter has announced "Go", the competitor must start within one minute.
  - 3.8.4 A competitor who misses a run, and who is not present when called, will not be permitted to participate further in the competition, but will retain his result up to that point, and will appear in the results list.
  - 3.8.5 The start referee may allow a competitor to make a delayed start, as stated in art 613.6.
- 3.9 Classification
  - 3.9.1 The competitor who obtains the fastest speed during one of the official competition runs is declared the winner of the competition.

- 3.9.2 The speeds of each run shall be announced on the official notice board and at the finish as soon as possible after the completion of the run. A daily publication of the results of each run must be posted up at the same time as the official bulletin. The final results will be given to each team captain and to all race officials.
- 3.9.3 The FIS only recognizes the performances achieved in the competitions entered by National Ski Association at the International Ski Calendar.
- 3.9.4 At the end of the season, the FIS will publish the following classification lists, divided into separate parts for ladies and for men:
- according to the speed
  - according to the FIS point order
  - according to the FIS World Cup points order
- 4 Competition Equipment
- 4.1 Skis  
Skis must not exceed 2.40 m in the length, must not exceed 11.5 kg in weight per pair, and must be constructed for high speed running.
- 4.2 Bindings  
Bindings must be equipped with ski-brakes; safety straps are forbidden. Nothing at all must modify their safety functions and they must not be covered with any streamlining or with any additional aerodynamic forms. The weight of a pair of bindings must not exceed 3.0 kg.
- 4.3 Ski Poles  
Ski Poles must have a chord measurement of at least 1 m. The obligatory baskets must be at least 3 cm in diameter, 5 cm high, be placed no more than 5 cm from the lower end of the poles and finish (at the lower end of the poles) by its largest part. The weight of a pair of poles must not exceed 2.0 kg. The handles, without hand straps, must be free of sharp or prominent parts which could be dangerous.
- 4.4 Clothing  
Clothing should be a plastified ski-suit suitable for downhill racing. Any form of internal or external streamlining is forbidden.
- 4.5 Boots  
Standard ski Boots are to be worn. Buckles and hooks can not be removed but a cloth or tape protection can cover them.
- 4.6 Crash Helmet  
A crash helmet is obligatory. It may be equipped with a neck protector and a face protector, but must not have any protuberances. It must not be excessively heavy. It may not exceed 40 cm in any dimension including padding and flexible seals.

- 4.7 Fairings  
Fairings must have a maximum length of 10 cm, measured from the perpendicular of the calf and heel to the trailing edge. They must not cover the bindings and may not be made from rigid materials.
- 4.8 Starting Numbers (art. 608.1)  
Starting numbers should, preferably, be stuck on the skis.
- 4.9 Miscellaneous Items  
Competitors may not wear metallic bracelets, wrist-watches or chain bracelets. Spectacles made of glass, or with metal frames, are also prohibited.
- 4.10 Verification  
All equipment described in art. 4 may be checked by the race organizers at any time in the competition.
- 5 Competitors Obligations  
  
All competitors are required to abide by arts. 220, 221 and 222.
- 6 Questions not Covered by Special Rules  
  
The instruction of arts. 200-230, 600-680 and 1250-1270 of the ICR should be followed for any questions not covered in the special rules elaborated above (Arts, 1 to 5).