

## Speed Skydiving World Series Rules

2016 Edition, Effective 1st March 2016

### The Essence of Speed Skydiving

To compete for the best Meet Result and set Personal Best speeds. Personal Bests can only be set during a sanctioned ISSA competition and are published online on the ISSA Eternal Ranking. Only regular skydiving gear on sale is allowed to be used. No extra weight is allowed. Two “hip-mounted” Larsen & Brusgaard Protracks measure the average speed between 2,700 metres (8,858 ft) and 1,700 meters (5,577 ft). The readings of the Protracks are to be extracted and analysed by Intervision Speedware.

### 1. Preface

Speed skydiving is a skydiving discipline with a definition as simple as it gets and it is the fastest non-motorized sport on Earth. In essence, speed skydiving is a pure discipline where only one aspect counts - free fall speed. The speed achieved by human body in free fall is the function of two factors, body weight and body orientation. In stable, belly to earth position, terminal velocity of the human body is about 200 km/h (about 120 mph). Stable freefly head down position has a terminal speed around 240-290 km/h (around 150-180 mph). Further minimizing body drag and streamlining the body position allows the skydiver to reach higher speeds in vicinity of 480 km/h (300 mph). Achieving and maintaining high free fall speed is the goal of speed skydiving.

### 2. Terms and Specifications

**Measurement Zone:** the measurement zone is represented by a vertical kilometre where speed measurements are taken. It starts at 2,700 metres (8,858 ft.) and ends at 1,700 metres (5,577 ft.) above the ground.

**Speed Measuring Device:** Protracks by Larsen & Brusgaard are the approved speed measuring devices. Speed measurements are done by two free fall computers - Protracks - placed on the lateral webbing, or in a line from this, on the competitors rig – one on each side of the rig. Each competitor is issued with 2 official Protracks for each jump.

**Analyzing Software:** Speed-Ware is the approved software to extract the readings from the speed measuring devices and to analyse the recorded data. Speed-Ware is a software product developed on behalf of the ISSA and is obtainable from the ISSA.

**Speed Skydiving Competition Rules:** an ISSA approved competition has to be run according to the currently applicable FAI/IPC Competition Rules for Speed Skydiving and ISSA Speed Skydiving World Series Rules.

**Speed Measurement:** Speed is measured using two Protracks. Protracks should be rotated between competitors for every run. The organizer is responsible for the complete documentation of the “Measuring Device / Competitor Assignment”.

**Qualification Jump:** if more than 15 competitors are preregistered for a competition, it is up to the organizer to do qualification rounds for all non ‘Qualified Competitors’. Minimum qualification speed for men is 300 km/h (186 mph), and 250 km/h (155 mph) for women, as the average over the Measurement Zone (1,000 meters). Only one Protrack may be used for qualification jump and it can be placed in competitor’s helmet or anywhere on the harness. The result of a qualification jump is not used for competition itself.

**Qualified Competitor:** a Competitor who has either met or exceeded the speed requirements during a qualification jump, or someone who has participated in speed skydiving competition before

**Out of Boundaries (OB):** the term is used when the speed difference between the two Protrack readings is greater than the predefined limit. An OB can happen if the competitor does not fall vertically. If a competitor falls at an angle either to their left or right, the pressure readings from each Protrack will be affected and this can result in an OB - an OB can also be caused by instability or any other disturbances to the airflow.

**Meet Result:** is the average of the best competition jumps depending on the number of rounds completed.

## 3. Competitions

### 3.1. Judging

A minimum of one Judge is required. The nominated judge must have a national Speed Skydiving rating, a FAI Speed Skydiving rating or must be approved by the ISSA Board.

The approved speed measurement device is Larsen & Brusgaard Protrack. The approved software for analysing the data is Intervision Speedware version.

A computer operator runs the data download according to the Speed Skydiving Competition Rules. The nominated judge validates and approves the results.

### 3.2. Technical

There is no special consideration for low pull since there is nothing that would encourage competitors to keep the speed beyond the measurement zone. However, low pulls may be subject to penalty according to the hosting dropzone rules.

No weights are allowed for the competition. Any gear or modifications are subject to review by race commission and if found dangerous or contravening rules may be prohibited from use in the competition.

Once in effect for the season, speed skydiving rules may not be changed.

### 3.3. Download Team

The organizer provides a competent Download Team. This team is responsible for the Measuring Device handling, the data download, the complete documentation of the 'Measuring Device / Competitor Assignment' and the data backup.

### 3.4. World Series 2016

The ISSA World Series 2016 consists of 3 separate meets. The schedule is published on [www.speed-skydiving.com](http://www.speed-skydiving.com). No additional meets will be added to the ISSA World Series Series 2016. In case a scheduled ISSA World Series meet cannot be hosted at the pre-designated dropzone, it should be relocated to a nearby dropzone within the same country.

### 3.5. World Series Results

World Series result is the summation of the 2 best meet results for each competitor regardless of number of meets completed (points = meet result of a single meet). If the competitor does not participate in some of the meets, the result for that meet(s) will be zero.

The competitor with most points is the winner of the World Series 2016 and the ISSA Speed Skydiving World Series Champion 2016.

### 3.6. Race Commission

Each participating country should be represented in the race commission. The race commission is composed of one athlete per country. The representative for a country with more than one participant will be drawn at random.

The race commission resolve conflicts that are not outlined in the Speed Skydiving Competition Rules. If not contradictory to the ISSA rules, FAI/IPC Sporting Code and Competitons Rules will be applied to all Speed Skydiving Competitions. The Race commission may not amend or change the rules, for example: changing the out of boundaries value.

### 3.7. ISSA Board 2016

The ISSA board is responsible for the Speed Skydiving World Series Rules and the annual Speed Skydiving World Series.

Permanent Members – in alphabetical order

Thomas Moritz Friess (GER)

Ken Hansen (SWE/NOR)

Arnold Hohenegger (AUT) - Chairman

Christian Labhart (SUI)

Michael Lovemore (GBR)

Marco Wiederkehr (SUI)

Organizer Representatives – in meet order

Tim Porter – Italian Meeting

Holger Enderlin – German Meeting

Peter Törnестam – Swedish Meeting

## 4. Personal Bests

Personal Bests can only be set during competition jumps, not qualification jumps. Personal Bests have to be approved by the ISSA. Personal Bests are published online on the ISSA Eternal Ranking.

National, Continental and World Records can only be set during a sanctioned FAI Event or a competition sanctioned by a National Airsport Control (NAC).

## 5. Resources

- Speed Skydiving news: [www.issa.one](http://www.issa.one)
- Speed Skydiving facebook: [www.facebook.com/issa.speedskydiving](https://www.facebook.com/issa.speedskydiving)
- Speed Skydiving Eternal Ranking: [www.issa.one/index.php/rankings](http://www.issa.one/index.php/rankings)
- Questions, concerns, suggestions: [mailbox@issa.one](mailto:mailbox@issa.one)

## 6. Summary of Changes 2015

Paragraph	Part	Change
	Essence	Speed-Ware changed to Intverson Speedware
3.1	Judging	Speed-Ware changed to Intervision Speedware
3.7	ISSA Board 2016	<p>The number of permanent members was reduced from 9 to 6. For every confirmed ISSA World Series Meeting one person joins the ISSA Board as Organizer Representative.</p> <p>Mark Calland, Jeanne Cameron and Olli Eerola left the ISSA Board.</p> <p>Tim Porter, Holger Enderlin and Peter Törnестam are the Organizer Representatives 2016.</p>
5	Resources	<p><a href="http://www.speed-skydiving.com">www.speed-skydiving.com</a> changed to <a href="http://www.issa.one">www.issa.one</a></p> <p>GSSDB changed to Eternal Ranking (incl. link)</p> <p><a href="mailto:issa@speed-skydiving.com">issa@speed-skydiving.com</a> changed to <a href="mailto:mailbox@issa.one">mailbox@issa.one</a></p>

## APPENDIX A: Template for Invitations

This template shows the minimum requirements for invitations and is standard for competition invitations.

Name of Competition: \_\_\_\_\_

Organizer: \_\_\_\_\_

Organized by: \_\_\_\_\_

Judge: \_\_\_\_\_

Download Team: \_\_\_\_\_

Location: \_\_\_\_\_

Arrival: \_\_\_\_\_

1st Competitor Meeting: \_\_\_\_\_

Competition starts: \_\_\_\_\_

Competition ends: \_\_\_\_\_

Award Ceremony: app. 1 hour after end of competition

Entries sent to: \_\_\_\_\_

Entryfee: \_\_\_\_\_

Entryfee includes: \_\_\_\_\_

Entryfee payback: \_\_\_\_\_

Requirements: \_\_\_\_\_

Competition: Speed Skydiving, 6 preliminary rounds, 1 semi-final and 1 final round, (minimum 2 rounds), rules according to the currently applicable ISSA Speed Skydiving Word Series Rules and the FAI/IPC Competition Rules for Speed Skydiving.

Trainingjumps: \_\_\_\_\_

Aircraft: \_\_\_\_\_