



SPEED SKYDIVING
SUB COMMITTEE



Speed Skydiving Proposed Rule Changes for 2019 Edition

Preface

The IPC Subcommittee for Speed Skydiving propose the change to GPS Measurement.

This change has a big impact to the Speed Skydiving Competition Rules. This presentation concentrates on the important rule changes implicated by the change to GPS measurement.

The focus is not on housekeeping or renumbering and also not on removed paragraphs regarding barometric measurements.

2.1 Course

Current Competition Rules:

A vertical kilometre where speed measurements are taken, starting at 2700 metres (8858 ft) above the ground and ending at 1700 metres (5577 ft) above the ground

Proposal:

~~A vertical kilometre where speed measurements are taken, starting at 2700 metres (8858 ft) above the ground and ending at 1700 metres (5577 ft) above the ground~~

2.2 Breakoff Altitude

Proposal

Breakoff altitude is set at 1700 metres AGL. Below the breakoff altitude no speed measurements are taken into account.

3.1.2 Classifications

Current Competition Rule:

Within the Speed Skydiving Open event, separate classifications will be made for:

Speed Skydiving Male
Speed Skydiving Female
Speed Skydiving Junior Male
Speed
Skydiving Junior Female

Proposal:

Within the Speed Skydiving Open event, separate classifications will be made for:

Speed Skydiving Male
Speed Skydiving Female
Speed Skydiving Junior Male
Speed Skydiving Junior Female
[Speed Skydiving National Team](#)

3.2 Programme of Events

Current Competition Rule:

3.2.2

The minimum number of rounds for a valid event is two.

3.2.3

Competitors make 8 rounds in the Open event, and do not make separate jumps for the classifications. The final results for the classifications are those obtained in the Open event.

Proposal:

3.2.2

The minimum number of rounds for a valid event is ~~two~~ one.

3.2.3

Competitors make 8 rounds in the Open event, ~~and do not make separate jumps for the classifications~~. The final results for the classifications are those obtained in the Open event.

3.3 Objective of the Event

Current Competition Rule:

The objective of the event is for the competitor to fly his body as fast as possible to achieve the highest average vertical speed through the course.

Proposal:

The objective of the event is for the competitor to fly his body as fast as possible to achieve the highest average vertical speed. ~~through the course.~~

3.3 Objective of the Event

Current Competition Rule:

The objective of the event is for the competitor to fly his body as fast as possible to achieve the highest average vertical speed through the course.

Proposal:

The objective of the event is for the competitor to fly his body as fast as possible to achieve the highest average vertical speed through a 3 second window (see 5.5.1). ~~through the course.~~

3.4 Performance Requirement

Current Competition Rule:

The accumulated total of the best competition jumps, depending on the number of rounds completed, is used to determine the final placings. The standings will also have a column showing the average speed based on number of rounds completed.

Proposal:

The accumulated total of the **best** competition jumps, ~~depending on the number of rounds completed~~, is used to determine the final placings. The standings will also have a column showing the average speed based on number of rounds completed.

4.1.5 SMD Mounting (Equipment)

Current Competition Rule:

Each competitor will wear two SMDs issued by the Chief Judge. The devices will be attached

(i) on the lateral webbing on each side of the competitors harness, or

(ii) on each side of the competitors container horizontally in line with the lowest part of the lateral webbing when the competitor is standing upright.

In either case, the SMDs must be mounted predominately on the sides of the rig and not above the widest point of the container when seen from behind, and the vertical distance between the centre of the SMD and the hip bone (tubercle of the ilium crest) of the competitor must be no greater than 7 cm. See 7.1. The devices will be located to the satisfaction of the Chief Judge, and this decision is not grounds for protest. Once the positions of the SMDs have been located to the satisfaction of the Chief Judge, the competitor is not allowed to change the location of the SMDs without the approval of the Chief Judge.

Proposal:

Each competitor will wear ~~two~~ **one** SMDs **provided by the organiser** and issued by the Chief Judge. The devices will be attached **on the helmet to the satisfaction of the Chief Judge**.

4.1.7 SMD Mounting (2)

Proposal:

4.1.7
The SMDs will be attached ~~by the competitor, supervised and sealed in location by a member of the judging staff. The devices will be attached prior to boarding the aircraft.~~ on the competitors helmet by a member of the judging staff, the device will be attached with the antenna having a clear view of the sky, located and positioned to the satisfaction of the Judge. The device will be attached prior to the start of the competition.

4.1.8
A competitor shall not wear any other electronic device or wires closer than 2,54 cm from the official SMD as measured by the judging staff. However, a second identical SMD unit may be worn without regard to this separation requirement. If any such electronic device affects the SMD system, and the source of the interference is not obvious and beyond the reasonable control of the jumper, a rejump may be granted by the Chief Judge.

4.1.9
The SMD will be turned on before the jump and off after the jump by a Judge or by the competitor if instructed to do so by any Judge.

4.1.9 Procedures (Equipment)

Current Competition Rule:

4.1.9 If one or both seals are found to be broken after the jump, and in the opinion of the Chief Judge and Meet Director this was not caused by normal parachuting conditions outside the control of the competitor, then the competitor will receive a score of zero for that jump broken seals are not ground for a re-jump. This decision is not grounds for protest.

Proposal:

If the SMD is found to have been tampered with and if in the opinion of the Chief Judge this was not caused by circumstances beyond the control of the competitor, then no re-jump will be awarded and the competitor will receive a score of zero for that jump. This decision shall not be grounds for a protest.

Current Competition Rule:

4.1.10 If one or both SMDs malfunctions, and this malfunction, in the opinion of the Chief Judge and Meet Director, was not caused by interference by the competitor, then the competitor has the choice for making a re-jump or accepting the score of zero for the jump. The competitor must make an immediate decision and must inform the Chief Judge of the decision; otherwise a re- jump must be made

Proposal:

If the SMD malfunctions and, in the opinion of the Chief Judge, the malfunction was not caused by action or interference by the competitor, then the competitor will be given the option of making a re-jump or receiving a score of zero for that jump.

4.4 Determination of Winners

Current Competition Rule:

At the end of all completed rounds, the accumulated total of the best competition jumps, depending on the number of rounds completed, is used to determine the competitor's score. The competitor with the highest score is the winner.

Proposal:

~~At the end of all completed rounds, the accumulated total of the best competition jumps, depending on the number of rounds completed, is used to determine the competitor's score.~~ The competitor with the highest score is the winner.

5.1.3 Jumping Procedure

Current Competition Rule:

5.1.3
The first person to exit on a pass goes 90 degrees to the right of the aircraft line of flight, the second goes 90 degrees left, and so on. If a competitor uses a technique that results in horizontal movement across the ground during the jump, then that competitor must turn to the appropriate direction shortly after exit. If a competitor uses a technique that results in a vertical flight path with little or no horizontal movement across the ground during the jump, then that competitor may make the turn to the appropriate direction during deceleration after leaving the course. See 7.2.

Proposal:

5.1.3
The first person to exit on a pass **goes turns** 90 degrees to the right of the aircraft line of flight, the second **goes turns** 90 degrees left, and so on. ~~If a competitor uses a technique that results in horizontal movement across the ground during the jump, then that competitor must turn to the appropriate direction shortly after exit. If a competitor uses a technique that results in a vertical flight path with little or no horizontal movement across the ground during the jump, then that competitor may make the turn to the appropriate direction during deceleration after leaving the course.~~ All Competitors must turn to the appropriate direction immediately after their freefall trajectory is no longer affected by the forward throw/momentum of the aircraft. This is to prevent horizontal movement in the line of flight of the jump run. See 7.1.

5.4.1 Speed Measuring Device

Current Competition Rule:

5.4.1
The SMD must be capable of gathering data, or transmitting real-time data to a ground station or stations, which allows the competitor's average vertical freefall speed between 2700 m and 1700 m above ground to be displayed to a resolution of one hundredth of a kilometre per hour, and the competitors exit altitude to be determined to an accuracy of 10 m. The SMD must also be capable of recording the exit altitude.

Proposal:

5.4.1
~~The SMD must be capable of gathering data, or transmitting real time data to a ground station or stations, which allows the competitor's average vertical freefall speed between 2700 m and 1700 m above ground to be displayed to a resolution of one hundredth of a kilometre per hour, and the competitors exit altitude to be determined to an accuracy of 10 m. The SMD must also be capable of recording the exit altitude.~~

The SMD must be capable of gathering data, and/or transmitting real-time data to a ground station or stations, which allows the competitor's vertical freefall speed to be displayed in kilometres per hour to an accuracy of less than 10,8 km/h (3m/s), The SMD must also be capable of recording the exit altitude to an accuracy of 33 feet (10 metres).

5.4.6 to 8 Speed Measuring Device (2)

Proposal:

5.4.6

The SMD must record real-time three-dimensional (3D) data with a resolution of at least 5Hz and a speed accuracy of less than 3m/s

5.4.7

The SMD must not require any action by the competitor in order for it to function.

5.4.8

Once attached to the competitor's helmet, it should not be possible for the competitor to alter settings or data from the device without this being evident to the judges. Tampering with the device will result in a score of zero for the jump. This decision is not grounds for protest.

5.5.1 Scoring Speed Skydiving

Current Competition Rule:

5.5.1
The score for a Speed Skydiving jump is the average vertical speed in kilometres per hour, to the nearest hundredth of a km/h, which the competitor achieves through the course. This score is obtained by taking the average of the speeds obtained from the two SMDs.

5.5.2
SMDs should be rotated between competitors as much as possible.

Proposal:

5.5.1
The score for a Speed Skydiving jump is the average vertical speed in kilometres per hour, to the nearest hundredth of a km/h, **of the fastest 3 seconds**, which the competitor achieves **between exit altitude (as defined in 5.3) and the breakoff altitude (as defined in 2.2)**. ~~This score is obtained by taking the average of the speeds obtained from the two SMDs.~~

~~5.5.2 — SMDs should be rotated between competitors as much as possible.~~

5.4.1 Speed Measuring Device

Current Competition Rule:

5.4.1
The SMD must be capable of gathering data, or transmitting real-time data to a ground station or stations, which allows the competitor's average vertical freefall speed between 2700 m and 1700 m above ground to be displayed to a resolution of one hundredth of a kilometre per hour, and the competitors exit altitude to be determined to an accuracy of 10 m. The SMD must also be capable of recording the exit altitude.

Proposal:

5.4.1
~~The SMD must be capable of gathering data, or transmitting real time data to a ground station or stations, which allows the competitor's average vertical freefall speed between 2700 m and 1700 m above ground to be displayed to a resolution of one hundredth of a kilometre per hour, and the competitors exit altitude to be determined to an accuracy of 10 m. The SMD must also be capable of recording the exit altitude.~~

The SMD must be capable of gathering data, and/or transmitting real-time data to a ground station or stations, which allows the competitor's vertical freefall speed to be displayed in kilometres per hour to an accuracy of less than 10,8 km/h (3m/s), The SMD must also be capable of recording the exit altitude to an accuracy of 33 feet (10 metres).

5.5.2 Rotating Speed Measuring Device

Current Competition Rule:

5.5.2

SMDs should be rotated between competitors as much as possible.

Proposal:

~~5.5.2~~

~~SMDs should be rotated between competitors as much as possible.~~

6.3.1 Determining Placing

Current Competition Rule:

6.3.1

Depending on the number of rounds completed, a different number of jumps will be used to determine placing as follows:

- (i) If 2 rounds have been completed, the competitor's best single round is used.
- (ii) If 3 rounds have been completed, the competitor's best 2 rounds are used, and the score is the total of the two speeds. As additional information the average of the two speeds can be shown on the score sheet.
- (iii) If 4 or 5 rounds have been completed, the competitor's best 3 rounds are used, and the score is the total of the three speeds. As additional information the average of the three speeds can be shown on the score sheet.
- (iv) If 6 or 7 rounds have been completed, the competitor's best 4 rounds are used, and the score is the total of the four speeds. As additional information the average of the four speeds can be shown on the score sheet.
- (v) If 8 rounds have been completed, the competitor's best 5 rounds are used, and the score is the total of the five speeds. As additional information the average of the five speeds can be shown on the score sheet.

6.3.1 Determining Placing (2)

Current Competition Rule:

6.3.1

~~Depending on the number of rounds completed, a different number of jumps will be used to determine placing as follows~~ At the end of a completed round, the accumulation of the competitor's single scores is used to determine the competitor's total result. The total result for the competitor determines the ranking. The competitors are ranked in descending order of their total results.

- ~~(i) If 2 rounds have been completed, the competitor's best single round is used.~~
- ~~(ii) If 3 rounds have been completed, the competitor's best 2 rounds are used, and the score is the total of the two speeds. As additional information the average of the two speeds can be shown on the score sheet.~~
- ~~(iii) If 4 or 5 rounds have been completed, the competitor's best 3 rounds are used, and the score is the total of the three speeds. As additional information the average of the three speeds can be shown on the score sheet.~~
- ~~(iv) If 6 or 7 rounds have been completed, the competitor's best 4 rounds are used, and the score is the total of the four speeds. As additional information the average of the four speeds can be shown on the score sheet.~~
- ~~(v) If 8 rounds have been completed, the competitor's best 5 rounds are used, and the score is the total of the five speeds. As additional information the average of the five speeds can be shown on the score sheet.~~

8.2 Composition of Delegations (1)

Current Competition Rule:

Each delegation may be comprised of:

One Head of Delegation.

One Team Manager/Coach.

A maximum of 6 competitors for a World Parachuting Championship.

A maximum of 8 competitors for a World Cup or a Continental Regional Championship. Judges and trainee judges as decided by the IPC.

Accompanying persons at the discretion of the event organiser.

8.2 Composition of Delegations (2)

Proposal:

9.1 Each delegation may be comprised of:

One Head of Delegation.

One Team Manager/Coach.

~~A maximum of 6 competitors plus 1 extra for a female come or a World Parachuting Championship.~~

~~A maximum of 8 competitors for a World Cup or a Continental Regional Championship.~~

A maximum of 8 places for a World Parachuting Championship - 7 places for male or female competitors and 1 place exclusively for a female competitor.

A maximum of 12 places for a World Cup or a Continental Championship - 10 places for male or female competitors and 2 places exclusively for female competitors.

Judges and trainee judges as decided by the IPC.

Accompanying persons at the discretion of the event organiser.

Composition of Delegations

Proposal:

9.2

For delegations with 3 registered competitors, the competitors will automatically form the national SP team upon registration unless the Head of Delegations or Team Manager disagrees.

9.3

For delegations with more than 3 registered competitors, the delegation may nominate 3 of its competitors to form the national SP team. This must be done before the starting order is finalized.