



AUSTRALIAN PARACHUTE FEDERATION

Competition Rules – Speed Skydiving



VERSION 01-2024

Status: Mandatory

Warning

Parachuting and flying in parachuting aircraft can be dangerous.

Version Control

It is important that members refer to the current version of this document. Current Version number is shown on the front cover and in the below table.

Current versions of these rules and any associated documents can be found on the APF website. Significant changes made from the previous version are shown in Amendments.

These rules are based on the relevant International Skydiving Commission (ISC) competition rules. Variations from those rules are indicated by *italic text*.

CURRENT VERSION	RELEASE DATE
01-2024	28 February 2024

PREVIOUS VERSIONS	REPLACED BY
10-2023	01-2024
09-2021	10-2023

AMENDMENTS

VERSION	AMENDMENT DETAILS
01-2024	Re-numbered and updated to conform to ISC rules.
10-2023	Taken from previous version of Sporting Code, separated into own document.

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Contents

1	APF AUTHORITY.....	4
2	DEFINITIONS OF WORDS AND PHRASES USED IN THESE RULES	4
3	THE EVENT.....	4
	3.1 Event Description.....	4
	3.2 Programme of Events.....	5
	3.3 Objective of the Event.....	5
	3.4 Performance Requirements.....	5
4	GENERAL RULES.....	5
	4.1 Equipment.....	5
	4.2 Training Jumps.....	7
	4.3 Order of Jumping	7
5	RULES SPECIFIC TO THE EVENT	8
	5.1 Exit Procedure	8
	5.2 Exit Order	8
	5.3 Exit Altitude.....	8
	5.4 Speed Measuring Device (SMD).....	9
	5.5 Scoring Speed Skydiving	10
6	WORK OF THE JUDGES IN THE DISCIPLINE	10
	6.1 Scoring the Jump.....	10
	6.2 Collation of the Score Sheets.....	11
	6.3 Determining Placing.....	11
	6.4 Determination of the Winners.....	11
	6.5 Other Responsibilities	12
7	THE COMPETITION.....	12
	7.1 Aims of the Competition	12
	7.2 Duration of the Competition	12
8	DETERMINATION OF CHAMPIONS.....	12

1 APF AUTHORITY

The competition will be conducted under the authority granted by the APF, according to the regulations of the Sporting Code and these rules.

2 DEFINITIONS OF WORDS AND PHRASES USED IN THESE RULES

- 2.1 Speed measuring device (SMD):** a device used to determine the vertical speed of the skydiver, which is mounted on the skydiver's helmet.
- 2.2 Breakoff altitude:** set at 5,600 feet. (1,707 metres). Below the breakoff altitude no speed measurements are taken into account. Note: All altitude information refers to altitude above ground level (AGL) as measured by the approved SMD.
- 2.3 Performance window:** the scoring part of the speed jump, which starts at exit. The end of the performance window is either 7,400 feet (2,256 metres) below exit or at Breakoff altitude, whichever is reached first.
- 2.4 Validation window:** the part of the jump which is used to determine the accuracy of the SMD data. The validation window is 3300 feet (1006m) in length, the end of which is determined by the end of the performance window.
- 2.5 Technical Scoring Director (TSD):** appointed by the Chief Judge and approved by the organiser for that position. The Technical Scoring Director is responsible for the planning, setup, and maintenance of the downloading and analysing software before and during an Australian National Championship.

3 THE EVENT

3.1 Event Description

- 3.1.1 The discipline will be comprised of the following event:
Speed Skydiving Open

Within the Speed Skydiving Open event, a separate classifications will be made where there are three or more competitors for Speed Skydiving Female

- 3.1.2 The competition in the classifications takes place during the rounds, and no separate jumps are made. The scores achieved in the rounds are used to determine the placings in the classifications.
- 3.1.3 The final scores in the open classification are carried across to male and female classifications as soon as all competitors in that classification have completed a round during the open event.

3.1.4 The title of Australian Champion is awarded to the first placed competitor in each category.

3.1.5 Medals will be awarded to the first three placed competitors in the Open Category.

3.2 Programme of Events

3.2.1 The event consists of eight rounds.

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

3.2.3 The final results for the classifications are those obtained in the Open event.

3.3 Objective of the Event

The objective of the event is for the competitors to fly their body as fast as possible to achieve the highest average vertical speed through a three second window (see 0).

3.4 Performance Requirements

The accumulated total of the competition jumps 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 GENERAL RULES

4.1 Equipment

4.1.1 Competitors may not wear additional weight on their body, in any of their equipment, or on any of their equipment.

4.1.2 Parachutes and equipment will be inspected by the Chief Judge or Meet Director to confirm that they conform to normal weights for that equipment. The Chief Judge and Meet Director may delegate this task to a qualified person, such as a Rigger, Senior Rigger or Master Rigger. If, in the opinion of the Chief Judge and Meet Director, the equipment does not conform to normal weights for that equipment, the competitor may be required to demonstrate that the equipment does not contain extra weight. This decision is not grounds for protest.

4.1.3 The Chief Judge, or the person appointed by the Chief Judge for this purpose, at the start of the competitions wearing all competitor's normal jump equipment to establish a baseline weight. Chief Judge, or appointed by Chief Judge for that purpose person, must conduct subsequent random weight checks, which may deviate from the baseline weight no more than +/- 2 kg before requiring an

inspection. If the addition or removal of weight is detected, the result for that jump will be zero. This decision shall not be grounds for protest.

- 4.1.4 Parachutes and equipment will be inspected by the Chief Judge, Meet Director or *DZSO* to confirm that they are safe for the event. Chief Judge, Meet Director or *DZSO* may delegate this task to a qualified person, such as a Rigger or Packer A. If, in the opinion of the Chief Judge, Meet Director and *DZSO*, the parachute and/or equipment are not safe for the event, the competitor will not be permitted to use it. Inspections that do not interfere with a competitor's performance may be made at any time during the competition, as determined by the Chief Judge. If any equipment does not meet the requirements as determined by the Chief Judge, Meet Director or *DZSO*, this equipment will be deemed to be unusable for the competition. This decision is not grounds for protest.
- 4.1.5 Each competitor must wear a suitable audible altitude warning device on every jump. Two suitable audible altitude warning devices, with visual indications in the goggles/visor, are recommended.
- 4.1.6 Each competitor will wear one SMD 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 If at any time after the start of the competition the Chief Judge finds the mounting position of the SMD unsatisfactory (for example, if the GPS signal is compromised) the SMD must be remounted to Chief Judge's satisfaction.
- 4.1.8 If a competitor changes their rig or helmet during competition, the new rig or helmet must be inspected by the Chief Judge or Meet Director according to 0, 0, 0 and 0 before the competitor is allowed to jump with the rig or helmet.
- 4.1.9 Prior to the start of the competition the SMD will be attached on the competitor's helmet by a member of the judging staff. The SMD will be attached with the antenna having a clear view of the sky, located and positioned to the satisfaction of the Judge.
- 4.1.10 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.

- 4.1.11 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. The judge will verify that the SMD is on and receiving satellite signal.
- 4.1.12 Immediately after the jump, the competitor must return the SMD to the judging staff. The competitor is not allowed to read the data directly from the SMDs before it is registered by the judges.
- 4.1.13 Within the validation window every SMD data sample used for scoring must satisfy precision criteria. Every data sample must have a speed accuracy of less than 3 m/s (10.8 km/h). If the accuracy requirement of the SMD data is not met then a rejump will be given.
- 4.1.14 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 rejump will be awarded and the competitor will receive a score of zero for that jump. This decision shall not be grounds for a protest.
- 4.1.15 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 rejump or receiving a score of zero for that jump.

4.2 Training Jumps

- 4.2.1 All competitors may have the opportunity on the official practice day to make at least one official training jump, weather permitting.
- 4.2.2 The SMDs in use in the competition, and all competition rules and procedures, will be used for these jumps.
- 4.2.3 The official training jumps shall be judged by the Official Panel of Judges, or Judges in Training under direct supervision of the Chief of Judge Training, and the scores may be published.

4.3 Order of Jumping

- 4.3.1 The order of jumping in the first round will be determined by reverse order of placing during the last Australian Championship.
- 4.3.2 Individuals not covered by this procedure will jump at the beginning or end of the first round, with order determined at the discretion of the Meet Director and Chief Judge.

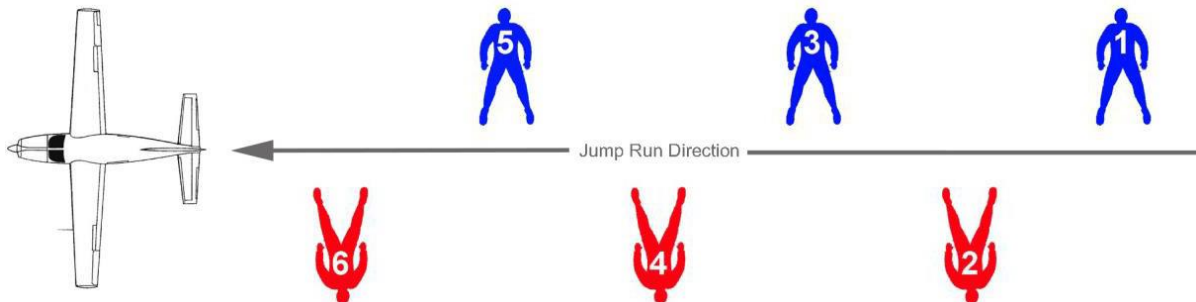
- 4.3.3 Time permitting, and at the discretion of the Meet Director, reverse order of ranking may be used for all other rounds.

5 RULES SPECIFIC TO THE EVENT

5.1 Exit Procedure

- 5.1.1 The exit point is determined by the pilot in conjunction with the Meet Director. The aircraft pilot will signal the competitors when they are clear to exit. All the competitors will be briefed on the specific exit signals at the pre-event competitors' meeting.
- 5.1.2 The exit delay between competitors must be such so as to ensure safe separation, and be at least five seconds.
- 5.1.3 The first person to exit on a pass turns 90 degrees to the right of the aircraft line of flight, the second turns 90 degrees left, and so on. 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 figure 1.

Figure 1.



5.2 Exit Order

- 5.2.1 For safety reasons, the exit order in a jump run is determined by the personal best of the competitors. The exit order in a jump run is personal best descending.
- 5.2.2 There will be a maximum of six competitors per exit pass, but this may be reduced by the Meet Director taking into consideration the aircraft size and the dropzone area.

5.3 Exit Altitude

- 5.3.1 Standard Exit Altitude is 13,000 feet (3,962 metres) to 14,000 feet (4,267 metres). It is the responsibility of the Meet Director in conjunction with the pilot(s) to make sure that the maximum and minimum exit altitudes (as measured by the approved SMD) are not exceeded.

- 5.3.2 For meteorological reasons or air traffic circumstances only, and with the consent of the *DZSO* and the Chief Judge, the Meet Director may lower the exit altitude by any amount down to 11,000 feet (3,353 metres) to continue the competition. The maximum altitude and the performance window will be reduced by the same amount but the breakoff altitude still remains 5,600 feet (1,707 metres). Any one round must be completed with the same altitude parameters.
- 5.3.3 **Maximum Exit Altitude:** The maximum exit altitude for a valid jump is 14,000 feet (4,267 metres) as measured by the approved competition SMD. A competitor should not exit the aircraft at a higher altitude than the maximum exit altitude. If the SMD registers a higher exit altitude than the maximum exit altitude, the jump will be considered as not valid and a rejump will be granted.
- 5.3.4 **Minimum Exit Altitude:** The minimum exit altitude for a valid jump is 13,000 feet (3,962 metres). A competitor should not exit the aircraft at a lower altitude than the minimum altitude. If the SMD registers a lower exit altitude than the minimum exit altitude the competitor may choose to accept the score for the jump. The competitor must make an immediate decision and inform the Chief Judge of their decision; otherwise a rejump will be granted automatically.

5.4 Speed Measuring Device (SMD)

- 5.4.1 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 (3 m/s), The SMD must also be capable of recording the exit altitude to an accuracy of 33 feet (10 metres).
- 5.4.2 The data from an SMD may or may not be required to be downloaded to computer in order to determine the competitors speed.
- 5.4.3 If the SMD transmits its data to the ground station during the jump, then that data must be recorded and saved when it is received.
- 5.4.4 If the data from the SMD is downloaded for analysis to a computer after landing, then that data must be recorded and saved when it is downloaded.
- 5.4.5 If the speed result is to be read directly from the SMD after landing, then the result needs to be retained on the SMD for the duration of the competition and recorded on the score sheets.
- 5.4.6 The SMD must record real-time three-dimensional (3D) data with a resolution of at least 5 Hz and a speed accuracy of less than 3 m/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 Scoring Speed Skydiving

- 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 three seconds, which the competitor achieves within the performance window.
- 5.5.2 The length of the performance window is 7,400 feet (2,256 metres), this is determined by the distance between the minimum exit altitude and breakoff altitude.
- 5.5.3 In the case of a standard exit altitude of between 13,000 feet (3,962 metres) and 14,000 feet (4,267 metres) the performance window is the maximum of 7,400 feet (2,256 metres). The competition window ends 7,400 feet (2,256 metres) below exit altitude.

6 WORK OF THE JUDGES IN THE DISCIPLINE

6.1 Scoring the Jump

- 6.1.1 Each performance shall be assessed by at least two Judges. All Judges must be APF Speed Skydiving Judges. APF Speed Skydiving Judges in Training, provided they are under the direct supervision of the Chief of Judge Training or their designee, having attended the Judge's Conference, may be used in addition to the Official Panel of Judges.
- 6.1.2 One or more individuals, supervised by the Chief Judge (or trainees under the supervision of the Chief of Judge Training) may support the judges in equipment and device management.
- 6.1.3 One Judge conducts the analysis of the jump and determines the appropriate score. The second Judge then checks the analysis and score before collation of the score sheet.
- 6.1.4 If a computer is used to analyse the data to obtain the speed, then the data must be downloaded as soon as possible after the competitor has handed in the device, and before the SMD is used again.
- 6.1.5 If the speed is read directly from the device, then the readings are to be taken when the competitor hands in the SMDs, the speeds are to be written directly on to the

score sheets, and the competitor is to sign for the score. The SMDs may then be used again.

6.1.6 If the speed is obtained from data transmitted during the jump to a ground station or stations, the SMD may only be used again once it has been determined that valid data has been obtained.

6.1.7 The scores will not be final until the data have been reviewed. The Chief Judge is responsible for determining a competitor's final score and placing.

6.2 Collation of the Score Sheets

6.2.1 The scores are collated immediately after the judges have assessed the jump. The results of the collation must be checked by the Chief Judge.

6.2.2 The score sheet must also have a column showing the average speed of completed rounds, rounded to the nearest hundredth of a km/h.

6.3 Determining Placing

6.3.1 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.

6.3.2 While a round is in progress, unofficial results may be published. However, if the round does not get completed, the scores from the incomplete round must be discarded and the results must be amended to reflect the scores from the number of completed rounds.

6.3.3 If the round is incomplete in the open event, but complete in any of the separate classifications, this round will be accepted as a complete round for these separate classifications.

6.4 Determination of the Winners

6.4.1 The competitor with the highest score is the winner.

6.4.2 In the event of a tie in the first three places, the following rules apply:

- (i) Where possible tie-break jumps shall be made.
- (ii) If this does not break a tie, then the competitor with the best result in any one round obtains the higher place.
- (iii) If the tie cannot be broken, the competitors concerned shall be declared co-medallists.
- (iv) All other ties shall be ranked equal.

6.4.3 In the event of a tie in the first three places in any of the classifications, paragraphs 0 will be applied.

6.5 Other Responsibilities

The Meet Director and Chief Judge may decide to interrupt the event if they consider that the meteorological conditions are not safe for the conduct of the event. This decision is not grounds for a protest.

7 THE COMPETITION

Title of the Competition: "The *APF National* Speed Skydiving Championship, (location), (year)".

7.1 Aims of the Competition

- 7.1.1 To determine the Champions of Speed Skydiving.
- 7.1.2 To promote and develop Speed Skydiving training and competition.
- 7.1.3 To establish new World and Continental Speed Skydiving competition records.
- 7.1.4 To exchange ideas and strengthen friendly relations between sport parachutists, judges, and support personnel.
- 7.1.5 To allow participants to share and exchange experience, knowledge, and information.
- 7.1.6 To improve judging methods and practices.

7.2 Duration of the Competition

The competition will be organised during a maximum time frame of five competition days. Exceptions may be made where a bid is received for multiple competitions at one time.

8 DETERMINATION OF CHAMPIONS

9.1 INDIVIDUAL CHAMPION

The title of National Champion is awarded to the first placed competitor in the Open event, and in each classification.

9.2 MEDALS AND AWARDS

Individual Medals – Open: Champion, 2nd place, 3rd place

Individual Medals – Female: Champion, 2nd place, 3rd place

