



Fédération Aéronautique Internationale

COMPETITION RULES

For

WINGSUIT PERFORMANCE FLYING

2015 Edition Effective 01 March 2015

Maison du Sport International Av. de Rhodanie 54 CH-1007 Lausanne Switzerland Tél. +41 (0)21 345 10 70 Fax +41 (0)21 345 10 77 E-mail: info@fai.org Web: www.fai.org

FEDERATION AERONAUTIQUE INTERNATIONALE MSI - Avenue de Rhodanie 54 – CH-1007 Lausanne – Switzerland

Copyright 2015

All rights reserved. Copyright in this document is owned by the Fédération Aéronautique Internationale (FAI). Any person acting on behalf of the FAI or one of its Members is hereby authorised to copy, print, and distribute this document, subject to the following conditions:

- 1. The document may be used for information only and may not be exploited for commercial purposes.
- 2. Any copy of this document or portion thereof must include this copyright notice.
- 3. Regulations applicable to air law, air traffic and control in the respective countries are reserved in any event. They must be observed and, where applicable, take precedence over any sport regulations

Note that any product, process or technology described in the document may be the subject of other Intellectual Property rights reserved by the Fédération Aéronautique Internationale or other entities and is not licensed hereunder.

RIGHTS TO FAI INTERNATIONAL SPORTING EVENTS

All international sporting events organised wholly or partly under the rules of the Fédération Aéronautique Internationale (FAI) Sporting Code¹ are termed *FAI International Sporting Events*². Under the FAI Statutes³, FAI owns and controls all rights relating to FAI International Sporting Events. FAI Members⁴ shall, within their national territories⁵, enforce FAI ownership of FAI International Sporting Events and require them to be registered in the FAI Sporting Calendar⁶.

Permission and authority to exploit any rights to any commercial activity at such events, including but not limited to advertising at or for such events, use of the event name or logo for merchandising purposes and use of any sound and/or image, whether recorded electronically or otherwise or transmitted in real time, must be sought by way of prior agreement with FAI. This includes specifically all rights to the use of any material, electronic or other, that forms part of any method or system for judging, scoring, performance evaluation or information utilised in any FAI International Sporting Event⁷.

Each FAI Air Sport Commission⁸ is authorised to negotiate prior agreements on behalf of FAI with FAI Members or other entities as appropriate, of the transfer of all or parts of the rights to any FAI International Sporting Event (except World Air Games events⁹) which is organised wholly or partly under the Sporting Code section¹⁰ for which that Commission is responsible^{11.} Any such transfer of rights shall be by "Organiser Agreement"¹² as specified in the current FAI Bylaws Chapter 1, para 1.2 "Rules for Transfer of Rights to FAI International Sporting Events".

Any person or legal entity which accepts the responsibility for organising an FAI Sporting Event, whether or not by written agreement, in doing so also accepts the proprietary rights of FAI as stated above. Where no formal transfer of rights has been established, FAI retains all rights to the event. Regardless of any agreement or transfer of rights, FAI shall have, free of charge for its own archival and/or promotional use, full access to any sound and/or visual images of any FAI Sporting Event, and always reserves itself the right to have any and all parts of any event recorded, filmed and/or photographed for such use, without charge.

_

¹ FAI Statutes, Chapter 1, para. 1.6

² FAI Sporting Code, General Section, Chapter 3, para 3.1.3.

³ FAI Statutes, Chapter 1, para 1.8.1

⁴ FAI Statutes, Chapter 2, para 2.1.1

⁵ FAI Bylaws, Chapter 1, para 1.2.1

⁶ FAI Sporting Code, General Section, Chapter 3, para 3.4

⁷ FAI Bylaws, Chapter 1, para 1.2.3

⁸ FAI Statutes, Chapter 5, para 5.2

⁹ FAI Sporting Code, General Section, Chapter 3, para 3.1.7

¹⁰ FAI Sporting Code, General Section, Chapter 1, paras 1.2. and 1.4

¹¹ FAI Statutes, Chapter 5, para 5.2.3.3.7

¹² FAI Bylaws, Chapter 1, para 1.2.2

Table of Contents

1	FAI AUTHORITY	5
2	DEFINITIONS OF WORDS AND PHRASES	5
3 3.1 3.2 3.3 3.4	THE EVENT OBJECTIVE OF THE EVENT TASKS PROGRAM DETERMINATION OF THE WINNERS	5 5 5
4 4.1	GENERAL RULES	
5 5.1 5.2 5.3	RULES SPECIFIC TO THE EVENT	6 7
6 6.1 6.2	WORK OF THE JUDGES	8
7 7.1 7.2	TITLE OF THE COMPETITION	8 8
7.3	PRIZES AND AWARDS	8

FAI AUTHORITY

1

The competition will be conducted under the authority granted by the FAI, according to the regulations of the Sporting Code of the FAI, General Section, and Section 5 as approved by the IPC and validated by the FAI, and these rules. All participants accept these rules and the FAI regulations as binding by registering in the competition.

2 DEFINITIONS OF WORDS AND PHRASES

- 2.1.1 Competition Window: A vertical 1000 meter window, starting at 3000 meters and ending at 2000 meters AGL, in which the performance of the wingsuit flyer is evaluated. The first crossing of the upper window boundary starts the evaluation process, which is stopped at the first crossing of the lower window boundary.
- 2.1.2 Position Logging Device (PLD): A device used to record the real-time, three-dimensional (3D) position of the wingsuit flyer, which is mounted on the wingsuit flyer's body or equipment.
- 2.1.3 Spherical Error Probability (SEP): The horizontal and vertical accuracy specifications of a PLD expressed in terms of a sphere of given radius; for example, "real-time accuracy <10 meters SEP."

3 THE EVENT

3.1 Objective of the Event

3.1.1 The objective is to fly a single wingsuit in three separate tasks to demonstrate a combination of best lift (time task), best glide ratio (distance task) and least drag (speed task). Each round of the event is therefore comprised of the three tasks. Each task is performed on a separate flight.

3.2 Tasks

- 3.2.1 **Time Task:** The wingsuit flyer is to fly with the slowest fall rate possible through the competition window. The result for this task will be the time taken to fly through the competition window, expressed in seconds, rounded to one decimal place.
- 3.2.2 **Distance Task:** The wingsuit flyer is to fly as far as possible through the competition window. The result for this task will be the straight-line distance flown over the ground while in the competition window, expressed in meters, rounded to whole numbers.
- 3.2.3 **Speed Task:** The wingsuit flyer is to fly as fast as possible horizontally over the ground through the competition window. The result for this task will be the straight-line distance flown over the ground while in the competition window divided by the time spent in the competition window, expressed in meters per second (m/s), rounded to one decimal place.

3.3 <u>Program</u>

- 3.3.1 An event shall consist of three rounds, with three tasks in each round, for a total of nine flights.
- 3.3.2 At least one round (three tasks) must be completed to determine rankings and declare winners.

3.4 <u>Determination of the Winners</u>

- 3.4.1 Each task in each round will be scored based on the top score of the task performed in that round. The top result will be scored 100%. The other results will be scored as a percentage of the top score, rounded to one decimal.
- 3.4.2 All rounds for each task will be averaged for each competitor for an intermediate result of the task.
- 3.4.3 The three intermediate results for each task for each competitor are added up to give the total result for the competitor.

- 3.4.4 The total result for the competitor determines the ranking.
- 3.4.4.1 In the event of a tie in the first three places, the following tie-break rules apply:
- 3.4.4.2 A tie-break jump will be made. The task shall be drawn at random by the Chief Judge.
- 3.4.4.3 If the tie cannot be broken, the competitors concerned shall be declared co-medalists.
- 3.4.5 All other ties in the standings shall be ranked equally.

4 GENERAL RULES

4.1 Equipment

- 4.1.1 Competitors shall not wear additional weight on their body or equipment. If any additional weight is worn, the score will be zero for that jump.
- 4.1.2 Competitors shall not use propulsion systems. If any propulsion system is used, the score will be zero for that jump.
- 4.1.3 A competitor should not wear any other electronic devices near the official PLD. If any such electronic device affects the PLD system, the score will be zero for that jump.
- 4.1.4 Each competitor must wear a functioning audio altitude warning device on every jump. Failure to do so will result in a score of zero for that jump.
- 4.1.5 The same wingsuit, without any changes or modifications of its parts, must be used for all tasks in a round. In exceptional circumstances, a suit may be changed between rounds with the consent of the Chief Judge, e.g., if the original suit gets damaged and cannot be made airworthy by the next round.
- 4.1.6 Wingsuits will be inspected and marked by a Judge. Only marked suits may be used for the event. Using an unmarked suit will result in a score of zero for that jump.
- 4.1.7 Each competitor shall wear one PLD issued by a Judge. The device will be attached on the jumper's equipment with the antenna having a clear view of the sky, located and positioned to the satisfaction of the Judge. This decision is not grounds for protest.
- 4.1.8 The PLD will be attached and sealed in its location by a Judge.
- 4.1.9 The PLD will be turned on and off by a Judge, as appropriate.
- 4.1.10 Immediately after landing, the competitor shall return the PLD used on that jump to a Judge.
- 4.1.11 If the seal is found to be broken after the jump, and if in the opinion of a 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 is not grounds for a protest.
- 4.1.12 If the PLD malfunctions, and in the opinion of a 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.

5 RULES SPECIFIC TO THE EVENT

5.1 Jump Run/Exit Order/Flight Pattern

- 5.1.1 Jump run should be perpendicular to the wind line upwind of the designated landing area, established at the discretion of the Meet Director and Chief Judge, based on drop zone safety considerations and local aviation/airspace regulations.
- 5.1.2 The order of jumping is at the discretion of the Meet Director and Chief Judge based on safety considerations.

- 5.1.3 The exit point is determined by the Meet Director and Chief Judge. 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.
- 5.1.4 Exits will be spaced apart to achieve safe separation. Immediately after exit, each competitor will turn 90 degrees from the aircraft heading towards the designated landing area to fly back in parallel lanes.
- 5.1.5 A competitor must not cross other lanes or deviate more than 30 degrees from the designated flight path. Violation of this rule, by decision of the Chief Judge, will result in a score of zero for that jump. If violation of this rule results in endangering other competitors, the competitor may, by decision of the Chief Judge, be disqualified from further participation in the competition and the competitor will be removed from the official standings. This decision is not grounds for protest.

5.2 Exit and Deployment Altitude

- 5.2.1 Exit altitude is 12,000ft. AGL. Maximum exit altitude (at the start of jump run) is 12,500 ft. AGL.
- 5.2.2 For meteorological and ATC reasons only, and with the consent of the Chief Judge, the Meet Director may lower the exit altitude to 10,000 ft. AGL and continue the competition. The course remains 3000 2000m AGL. However, if the exit altitude is lowered it must apply for a complete task of a round for all competitors.
- 5.2.3 The deployment altitude for each competitor will be pre-determined by the Meet Director and Chief Judge in order to maximize horizontal and vertical separation. If a violation of this rule results in endangering other competitors, the competitor may, by decision of the Chief Judge, be disqualified from further participation in the competition and will be removed from the official standings. This decision is not grounds for protest.
- 5.2.4 All jumps for the distance task of a round should be made from the same, or back-to-back loads, in order that competitors jump in similar winds. Rejumps for the distance task should be made as soon as possible to ensure similar wind conditions. The same criteria applies to the speed task of a round.

5.3 <u>Position Logging Device (PLD)</u>

- 5.3.1 The PLD must record real-time three-dimensional (3D) data with a resolution of at least 5Hz and a position accuracy (SEP) of less than 10 meters.
- 5.3.2 The PLD must not require any action by the competitor in order for it to function, and it must activate its recording function automatically.
- 5.3.3 Once attached to the competitor, the settings on the device must not be capable of being altered by the competitor, nor must it be possible for the competitor to delete the data without this being easily 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.
- 5.3.4 The data recorded by the PLD must be downloaded as soon as possible after the competitor has handed in the devices, and before the PLD is used again.
- 5.3.5 If the data from the PLD is downloaded for analysis to a computer after landing, then that data must be recorded and saved when it is downloaded.

6 WORK OF THE JUDGES

6.1 Scoring the jump

6.1.1 Scoring will be supervised by at least two FAI Wingsuit Performance Judges.

6.2 Other responsibilities

- 6.2.1 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, device and data management.
- 6.2.2 One or more qualified individuals, supervised by the Chief Judge, must observe the competitors during their descent and on opening. The observer must check for any conditions or incidents that might constitute grounds for a re-jump and/or disqualification for safety reasons. A written record must be made of any unusual observations or incidents.
- 6.2.3 The Chief Judge and/or Meet Director may interrupt the event if they determine the meteorological conditions are not safe for the conduct of the event. This decision is not grounds for a protest.

7 TITLE OF THE COMPETITION

- "The ____ FAI World Wingsuit Performance Flying Championship, (location), (year)" or,
- "The ____ FAI World Cup of Wingsuit Performance Flying, (location), (year)" or,
- "The ___ FAI (continent) Wingsuit Performance Flying Championship, (location), (year)" or,
- "The ____ FAI (continent) Cup of Wingsuit Performance Flying, (location), (year)."

7.1 <u>Aims of the Competition</u>

- 7.1.1 To determine the Champions (1st, 2nd, 3rd) of Wingsuit Performance Flying.
- 7.1.2 To promote and develop Wingsuit Performance Flying training and competition.
- 7.1.3 To establish new World and Continental Wingsuit Performance Flying competition records.
- 7.1.4 To exchange ideas and strengthen friendly relations between wingsuit flyers, judges and support personnel of all nations
- 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 <u>Composition of Delegations</u>

- 7.2.1 Each delegation may be comprised of:
- 7.2.1.1 One Head of Delegation.
- 7.2.1.2 One Team Manager/Coach.
- 7.2.1.3 A maximum of eight (8) competitors for a World Championships.
- 7.2.1.4 A maximum of twelve (12) competitors for a World Cup or Continental Regional Championships.
- 7.2.1.5 Accompanying persons and additional support personnel at the discretion of the event organizer.

7.3 Prizes and Awards

- 7.3.1 Medals are awarded to the first three competitors with the highest overall ranking.
- 7.3.2 The title of World or Continental Champion is awarded to the first placed competitor in a FAI World/Continental Parachuting Championships.