

<i>Subject:</i>	<b>DRAFT COMPETITION RULES FOR INDOOR SKYDIVING - VERTICAL FORMATION SKYDIVING, 4-WAY</b>	<i>Annex No. -</i>	<b>30</b>
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<i>Date:</i>	<b>10 December 2013</b>	<i>Total Pages</i>	<b>16</b>

**DRAFT**

# **Competition Rules**

For  
**Indoor Vertical Formation Skydiving**

2014

# FEDERATION AERONAUTIQUE INTERNATIONALE

MSI - Avenue de Rhodanie 54 – CH-1007 Lausanne –Switzerland

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- 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; 2.4.2; 2.5.2 and 2.7.2
- 5 FAI Bylaws, Chapter 1, para 1.2.1
- 6 FAI Statutes, Chapter 2, para 2.4.2.2.5
- 7 FAI Bylaws, Chapter 1, para 1.2.3
- 8 FAI Statutes, Chapter 5, para 5.1.1; 5.5 and 5.6
- 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 5.6.3
- 12 FAI Bylaws, Chapter 1, para 1.2.2

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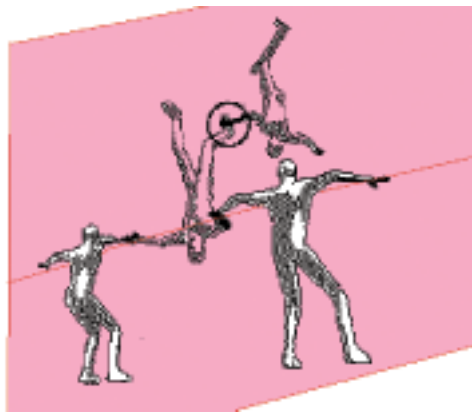
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## 1 FAI Authority

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 Used in These Rules

- 2.1. Formation: A formation consists of competitors linked by grips, with each competitor in the correct orientation.
- 2.2. Grip: consists of a handhold on an arm or leg of another competitor as shown in 6.2. As a minimum, a grip requires stationary contact.
- 2.3. Grip line: This is the line linking the torsos of two competitors via their arms or legs and that the grip that joins them.
  - 2.3.1. Clarification regarding random I) and M) – There is an imaginary vertical plane passing through the handgrips, with outside competitors having hand grips on one side of the vertical plane and the competitor taking the leg grip on the other side of the vertical plane. No grip line may cross the vertical plane within the formation.



- 2.4. Body: consists of the entire competitor and his or her equipment.
- 2.5. Dive Pool: consists of the random formations and block sequences depicted in the addenda to these rules.
- 2.6. Subgroup: is an individual competitor or competitors linked by grips required to complete a designated manoeuvre during the inter of a block sequence.

- 2.7. A subgroup's centerpoint is one of the following:
1. The defined grip or the geometric center of the defined grips within a subgroup of competitors linked by grips.
  2. The geometric center of an individual competitor's torso.
- 2.8. Total Separation: is when all competitors show at one point in time that they have released all their grips and no part of their arms have contact with another competitor's body.
- 2.9. Inter: is an intermediate requirement within a block sequence, which must be performed as depicted in the dive pools.
- 2.10. Sequence: is a series of random formations and block sequences which are designated to be performed.
- 2.11. Scoring Formation: is a formation which is not an infringement and is correctly completed and clearly presented either as a random formation or within a block sequence as depicted in the dive pool, and which, apart from the first formation after entry, must be preceded by a correctly completed and clearly presented total separation or inter, as appropriate.
- 2.12. Infringement: is one of the following:
1. An incorrect or incomplete formation which is followed within working time by either
    - A total separation or,
    - An inter, whether correct or not.
  2. A correctly completed formation preceded by an incorrect inter or incorrect total separation.
  3. A formation, inter, or total separation not clearly presented.
- 2.13. Omission: is one of the following:
1. A formation or inter missing from the drawn sequence.
  2. No clear intent to build the correct formation or inter is seen and another formation or inter is presented and there is an advantage to the team resulting from the substitution.
  3. If both the inter and the second formation in a block sequence are omitted, this will be considered as only one omission.
- 2.14. Entrance: Teams must enter the tunnel using the designated doorway. The working time will start when both feet of any team member leave the antechamber floor and the team member enters the tunnel. Team members may lean into the air flow with one foot inside the tunnel without the working time starting as long as one foot remains on the floor of the antechamber.
- 2.15. Working Time: is the period of time during which teams are scored on a performance, which starts when both feet of any team member leave the antechamber floor in order to enter the tunnel and terminates a number of seconds later as specified in 3.1.

- 2.16. Antechamber: the area used by teams as a waiting and staging area for entrance into the wind tunnel. This chamber is separated from the public viewing area and is for the exclusive use of the teams on call.
- 2.17. NV: No Video – no video image is available for judging purposes.
- 2.18. Judgement Call: An assessment by the judges of a formation, infringement or omission that is not unanimous.
- 2.19. Orientation:
  - 2.19.1. “Head Down” orientation requires that the competitor’s torso is vertical with the head down, towards the ground.
  - 2.19.2. “Head Up” orientation requires that the competitor’s torso is vertical with the head up, towards the sky.
  - 2.19.3. “Bellyflying” or “Belly to Earth” orientation requires that the competitor’s torso is in a horizontal (prone) position, with the front of the torso toward the earth.  
 (“Bellyflying” is not currently used in VFS formations)
  - 2.19.4. “Backflying” orientation requires that the competitor’s torso is in a horizontal (prone) position, with the front of the torso toward the earth.  
 (“Backflying” is not currently used in VFS formations).

### **3. The Events**

- 3.1. Event Description: 4-Way VFS Event: Working time is 35 seconds.
- 3.2. Objective of the Events
  - 3.2.1 The objective of the event is for the team to complete as many scoring formations as possible within the working time, while correctly following the sequence for the round.
  - 3.2.2 The accumulated total of all rounds completed is used to determine the placing of teams. Only one completed round is required to declare champions.
    - 3.2.2.1 If two or more teams have equal scores the following order of procedures will be applied to determine the final placings:
      - 3.2.2.1.1 For entry into the semi-final and the final rounds:
        - i. The highest score in any completed round,
        - ii. The highest score starting with the last completed round and continuing in reverse order, round by round until the tie is broken,
        - iii. The fastest time (measured to hundredths of a second) to the last common scoring formation in the last completed round.

3.2.2.1.2 For determination of the final placings:

- i. One tie break round, if possible (for the first three placings only). The tie break round will be the next drawn round of the competition,
- ii. The highest score in any completed round,
- iii. The highest score starting with the last completed round and continuing in reverse order, round by round until the tie is broken,
- iii. The fastest time (measured to hundredths of a second) to the last common scoring formation in the last completed round.

3.3. Performance Requirements

- 3.3.1 Each round consists of a sequence of formations, depicted in the dive pools of the appropriate addendum, as determined by the draw.
- 3.3.2 It is the responsibility of the team to clearly present the start of working time, correct scoring formations, inters and total separations to the judges.
- 3.3.3 Scoring formations need not be perfectly symmetrical, but they must be performed in a controlled manner. Mirror images of random formations and whole block sequences are permitted. Mirrors are only permitted when set in a vertical plane.
- 3.3.4 In sequences, total separation is required between block sequences, between random formations, and between block sequences and random formations.
- 3.3.5 Where degrees are shown (180°, 270°, 360°, 540°), this indicates the approximate degrees and direction of turn required to complete the inter as intended. The degrees shown are approximately that amount of the circumference of the subgroup's centerpoint to be presented to the centerpoint(s) of the other subgroup(s).  
For judging purposes, the approximate degrees and direction of turn of subgroups centerpoints will be assessed using only the two dimensional video evidence as presented.
- 3.3.6 Contact is allowed between different subgroups during the inter of a block sequence.
- 3.3.7 Where subgroups are shown, they must remain intact as a subgroup with only the depicted grips on other competitors in that subgroup.
- 3.3.8 Assisting handholds on other bodies in a scoring formation are not permitted.
- 3.3.9 Handholds by the competitor on his or her own body within a subgroup or a scoring formation are permitted.
- 3.3.10 No grip line (ref. 2.3) may cross another grip line within a formation.

## 4 General Rules

### 4.1. Composition of Teams

Teams may consist of competitors of either or both sexes, except in the female event where all competitors must be female.

### 4.2. The Draw

4.2.1 The draw of the sequences will be done publicly and supervised by the Chief Judge. Teams will be given not less than 2 hours knowledge of the results of the draw before the competition starts.

4.2.2 **Event Draws:** All the "block sequences" (numerically numbered) and the "random formations" (alphabetically marked) shown in the appropriate addenda will be singularly placed in one container. Individual withdrawal from the container, (without replacement) will determine the sequences to be flown in each round. Each round will be drawn so as to consist of five or six scoring formations, whichever number is reached first. A computer generated draw is also acceptable.

4.2.3 **Use of Dive Pool:** Each block or formation will be drawn for the scheduled rounds of each competition. In the event that additional rounds are necessary, due to the tie-breaking "fly-off," the dive pool for this round will consist of the blocks and formations which were not drawn for the scheduled rounds. In the event that all of the remaining blocks and formations do not complete the tie-breaking round, the draw will continue from an entire original dive pool in that event, excluding any blocks or formations which have already been drawn for that round.

### 4.3. Practice jumps or Wind tunnel time.

Competitors are not allowed to make a parachute jump of any kind nor use a wind tunnel for practice after the draw has been made.

### 4.4. Performance Order

The performance order for the competition will be determined by a draw made before the competition starts.

### 4.5. Video Recording

4.5.1 Video evidence is required to judge each performance and to show the team's performance to third parties.

4.5.2 A Video Controller will be appointed by the Chief Judge prior to the start of the judges' conference. The Video Controller is responsible for the functionality of the video equipment to ensure it is usable for the competition.

4.5.3 For the purpose of these rules, "video equipment" refers to the equipment installed in the wind tunnel by the organizer specifically for the competition. No other video equipment will be used for judging.

- 4.5.4 A Video Review Panel (VRP) will be established prior to the start of the official training performances, consisting of the chief judge, Jury President, and the FAI controller. Decisions rendered by the VRP shall be final and shall not be subject to protest or review by the Jury.
- 4.5.5 If the VRP determines that a team has deliberately tampered with the video equipment, that team will receive the minimum score for all competition rounds subject to this tampering.
- 4.5.6. The video equipment will be placed in the wind tunnel in such a location as to ensure that all members of the team are visible from below. The location must be approved by the Chief Judge and the FAI Controller
- 4.5.7. The recording (camera), playback, and all auxiliary equipment must be full High Definition input and full High Definition output and must provide viewing for the judges.
- 4.6. Scoring
  - 4.6.1 A team will score one point for each scoring formation performed in the sequence within the allotted working time of each round. Teams may continue scoring by continually repeating the sequence.
  - 4.6.2 For each omission three points will be deducted from the aggregate points scored in accordance with 4.6.1.
  - 4.6.3 If an infringement in the scoring formation of a block sequence is carried into the inter (ref. 2.8.), this will be considered as one infringement only, provided that the intent of the inter requirements for the next formation is clearly presented and no other infringement occurs in the inter.
  - 4.6.4 If a team member makes contact with the floor screen or the tunnel walls and the majority of the judging panel deem this contact to be intentional, one point will be deducted from the aggregate points scored in accordance with 4.6.1 for each such contact made.
  - 4.6.5 The minimum score for any round is zero (0) points.
- 4.7. Re-performances
  - 4.7.1 Where the video evidence is considered insufficient for judging purposes, a re-performance will be given unless the video review panel determines that there has been an intentional abuse of the rules by the team, in which case no re-performance will be granted and the team will receive the minimum score for that performance.
  - 4.7.2 Contact or other means of interference between team members and between team members and the floor screen or the tunnel walls shall not be grounds for the team to request a re-performance.
  - 4.7.3 Problems with a competitor's equipment shall not be grounds for the team to request a re-performance.

#### 4.8. Training Performances

- 4.8.1 Each team in each event will be given the option of one official training performance before the draw is made to determine appropriate speed settings.

- OR -

For practice performances, the host will ensure the performance chamber air flow limits are between 120 – 125 mph.  
The team has 60 seconds to acquaint themselves with this speed and adjust their flying accordingly.

- 4.8.2 The wind tunnel configuration used for the competition will also be used for the official training performance.

<b>5 Judging</b>
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#### 5.1. Judging Procedure

The performances will be judged using video evidence.

#### 5.2. Number of Judges

A minimum of five judges must evaluate each team's performance.

#### 5.3. Viewings/Review of the Video Evidence

- 5.3.1 The judges will watch the video evidence of each performance (1) one time at normal speed to determine points in time. The moment of freeze frame at the end of working time will be determined at the first viewing. If a judgement call occurs, a second viewing of the jump will be conducted at normal or reduced speed between 70-90 percent of normal speed. At the request of the Event Judge a (3<sup>rd</sup>) third view of part(s) of the jump can be conducted at normal or reduced speed. The speed of the second - and third viewings (normal or reduced) will be determined by the Event Judge. The Chief Judge will decide prior to the start of the Competition the percentage of reduced of speed to be used for the different Events. The freeze frame from the first viewing will be applied on each viewing. to a maximum of three times at normal speed.
- 5.3.2. If, after the viewings are completed, and within fifteen seconds of the knowledge of the result, the chief judge, event judge or any judge on the panel considers that an absolutely incorrect assessment has occurred, the chief judge or event judge will direct that only that part(s) of the performance in question be reviewed at reduced speed in accordance with 5.3.1 If the review results in a unanimous decision by the judges on the part(s) of the performance in question, the score for the performance will be adjusted accordingly. Only one review is permitted for each performance.

#### 5.4. Evaluation

The judges will use an electronic scoring system to record their evaluation of the performance. At the end of the working time, freeze-frame will be applied on each viewing, based on the timing taken from the first viewing only. The judges may correct their evaluation record after the performance has been judged. Corrections to the evaluation record can only be made before the chief judge signs the score sheet. All individual judges' evaluations will be published.

#### 5.5. A majority of Judges must agree in the evaluation in order to:

- credit the scoring formation, or
- assign an infringement, or
- assign an omission, or
- determine an NV situation

#### 5.6. Start of Working Time

The chronometer will be operated by the judges or by a person(s) appointed by the chief judge, and will be started as determined in 2.13. If the judges cannot determine the start of the working time, the following procedure will be followed. Working time will start at the time any one member's body enters the wind tunnel and a penalty equal to 20% (rounded down) of the score for that performance will be deducted from the score for that performance.

## 6 Definitions of Symbols

#### 6.1. Coding in the Dive Pool Addenda

6.1 Indicates direction of turn by the subgroup



6.1.2 Indicates turn by the subgroup in either direction



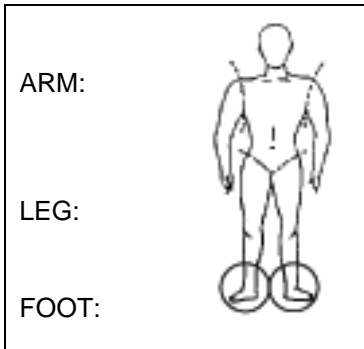
6.1.3 Indicates turns by all subgroups



6.1.4 Indicates clarification of intent



6.2. Visualization for Grip Positions  
(ref. 2.2)



## 7. Rules Specific to the Competition

- 7.1. Title of the Competition: “\_\_\_TH FAI World/Continental Parachuting Championships or World Cup of Indoor Vertical Formation Skydiving (insert location), (insert year)”.
- 7.2. Aims of World/Continental Parachuting Championships and World Cups
- 7.2.1. To determine World/Continental Champions or World Cup Winners of Indoor Vertical Formation Skydiving in the:
- 4-Way Event
- 7.2.2. and
- To determine the world standings of the competing teams,
  - To establish indoor Vertical Formation Skydiving world records,
  - To promote and develop Indoor Vertical Formation Skydiving,
  - To present a visually attractive image of the competition performances and standings (scores) for competitors, spectators and media,
  - To exchange ideas and strengthen friendly relations between the sport indoor fliers, judges, and support personnel of all nations,
  - To allow participants to share and exchange experience, knowledge and information,
  - To improve judging methods and practices.
- 7.3. Composition of Delegations:
- 7.3.1. Each delegation may be comprised of:
- One (1) Head of Delegation,
  - One (1) Team Manager,
  - Team Coaches

- 7.3.2 At a World/Continental Championship:
- One 4-Way team consisting of up to:
  - Four (4) 4-Way Competitors
- 7.3.3. At a World Cup:
- Any number (to a maximum of 4) teams per event (composed as for a World Championship) to be decided by the Organizer and announced in the bulletins.
- 7.3.4. No Competitor may compete in more than two Indoor Vertical Formation Skydiving events (including Formation Skydiving).
- 7.3.5. Any Competitor that competes in two different events must be listed separately on the entry form for each event.

**7.4. Program of Events:**

- 7.4.1. The World/Continental Championships or World Cup is comprised of:
- Up to 6 rounds considered as selection rounds, and
  - Final rounds, consisting of one semi final and one final round.
- 7.4.2. Time must be reserved before the end of competition to allow for the completion of the semi-final, final and tie break round.
- 7.4.3. The semi-final round will consist of the teams with the 10 highest placings after the selection rounds.
- 7.4.4. The final round will consist of the teams with the 6 highest placings after the semifinal.
- 7.4.5. A selection round left incomplete must be completed as soon as possible, but after the round in progress has been completed.
- 7.4.6. If all the selection rounds are not completed at the starting time of the semi-final, the round in progress will become the semi final or final round as appropriate. Where this is the semi final, the next drawn round will be used for the final round. The following procedures will apply:
- I. The round in progress will be completed if ten or less (in the case of semi finals) or six or less (in the case of finals) teams remaining for performances. All scores for this round will count.
  - II. The round in progress will be performed by only the ten (in the case of semi finals) or six (in the case of finals) highest placed teams if more than ten (in the case of semi finals) or six (in the case of finals) teams remain to jump. The scores of any other teams in this round will be discarded.
- 7.4.7. The competition will be organized during a maximum time frame of 5 competition days. Exceptions may be made where a bid is received for multiple FCE competitions at one time.

**7.5. Medals and Diplomas are awarded as follows:**

- All team members in the events will be awarded medals if placed First, Second or Third.
- Diplomas are awarded to all competitors that are placed First to Tenth.

#### ADDENDA

- Addendum A: Indoor Vertical Formation Skydiving 4-Way Block Pool 2011
- Addendum B: Indoor Vertical Formation Skydiving 4-Way Random Pool 2011
- Addendum C: IPC FS Dive Pool Adjusted for Tunnel Sizes

#### Addendum A - Indoor Vertical Formation Skydiving 4-Way Pool 2013

- [Insert Indoor Vertical Formation Skydiving 4-Way Block Pool Here](#)

#### Addendum B – Indoor Vertical Formation Skydiving 4-Way Random Pool 2013

- [Insert Indoor Vertical Skydiving 4-Way Random Pool Here](#)