



Fédération Aéronautique Internationale

Competition Rules

Indoor Formation Skydiving
and
Indoor Vertical Formation Skydiving

2016 Edition Effective 1st March 2016

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

Copyright 2016

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.

An event organiser who wishes to exploit rights to any commercial activity at such events shall seek prior agreement with FAI. The rights owned by FAI which may, by agreement, be transferred to event organisers include, but are not limited to advertising at or for FAI events, use of the event name or logo for merchandising purposes and use of any sound, image, program and/or data, whether recorded electronically or otherwise or transmitted in real time. This includes specifically all rights to the use of any material, electronic or other, including software, 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 may negotiate agreements, with FAI Members or other entities authorised by the appropriate FAI Member, for the transfer of all or parts of the rights to any FAI International Sporting Event (except World Air Games events⁹) in the discipline¹⁰, for which it is responsible¹¹ or waive the rights. Any such agreement or waiver, after approval by the appropriate Air Sport Commission President, shall be signed by FAI Officers¹².

Any person or legal entity that accepts 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 transfer of rights has been agreed in writing, FAI shall retain 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. The FAI also reserves the right to arrange at its own expense for any and all parts of any event to be recorded..

FAI Statutes, Chapter 1, para. 1.6 1 FAI Sporting Code, Gen. Section, Chapter 4, para 4.1.2 2 FAI Statutes, Chapter 1, para 1.8.1 3 4 FAI Statutes, Chapter 2, para 2.1.1; 2.4.2; 2.5.2 and 2.7.2 5 FAI By-Laws, Chapter 1, para 1.2.1 FAI Statutes, Chapter 2, para 2.4.2.2.5 6 7 FAI By-Laws, Chapter 1, paras 1.2.2 to 1.2.5 FAI Statutes, Chapter 5, paras 5.1.1, 5.2, 5.2.3 and 5..2.3.3 FAI Sporting Code, Gen. Section, Chapter 4, para 4.1.5 10 FAI Sporting Code, Gen. Section, Chapter 2, para 2.2. 11 FAI Statutes, Chapter 5, para 5.2.3.3.7 12 FAI Statutes, Chapter 6, para 6.1.2.1.3



This document takes effect on 1st of March 2017.

The 2016 Edition differs from the 2016 Edition in those paragraphs with a vertical bar in the margin.

TABLE OF CONTENTS		
Chapter 1: FAI Authority	3	
1.1 FAI Authority	3	
Chapter 2: Definitions of Words and Phrases Used in thes		
2.1 Formation	3	
2.2 Grip2.3 Grip Line	3	
2.4 Body	3	
2.5 Dive Pool	3	
2.6 Subgroup	3	
2.7 Subgroup Centerpoint	3 3 3 3 3	
2.8 Total Separation	3 4	
2.9 Inter2.10 Sequence	4	
2.11 Scoring Formation	4	
2.12 Infringement	4	
2.13 Omission	4	
2.14 Entrance	4	
2.15 Working Time 2.16 Antechamber	4 4	
2.17 NV	4	
2.18 Judgement Call	4	
2.19 Orientation	4	
Chapter 3: The Events	5	
3.1 Event Description	5	
3.2 Objective of the Event	5	
3.3 Performance Requirements	5	
Chapter 4: General Rules	6	
4.1 Composition of Teams	6	
4.2 The Draw4.3 Use of Skydiving	6 6	
4.4 Performance Order	6	
4.5 Video Recording	6	
4.6 Scoring	7	
4.7 Re-performances	7	
4.8 Training Performances	7	

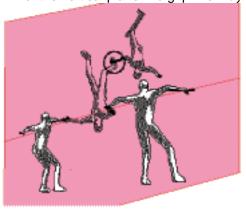
5.1 5.2 5.3 5.4	<pre>pter 5: Judging Judging Procedure Number of Judges Viewings/Review of the Video Evidence Evaluation Evaluation (con`t)</pre>	7 7 7 7 8 8
	Start of the Working Time	8
6.1 6.2 6.3 6.4	pter 6: Rules Specific to the Competition Title of the Competition Aims of the Competition Composition of Delegations Program of Events Medals and Diplomas	8 8 8 9 9
7.1	pter 7: Definitions of Symbols Coding in the Dive Pool Addenda Visualisation for Grip Positions	9 9 10
Adde Adde Adde Adde	exes endum A – Current Formation Skydiving 4-Way Block Pool endum B – Current Formation Skydiving 4-Way Random Pool endum C – IPC FS Dive Pool Adjusted for Tunnel Sizes endum D – Current Vertical Formation Skydiving 4-Way Block Pool endum E – Current Vertical Formation Skydiving 4-Way Random Pool	11 14 15 16 21

1. FAI Authority

1.1. 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 used in these Rules

- **2.1.** Formation: consists of competitors linked by grips. For VFS with each competitor in the correct orientation.
- **2.2.** Grip: consists of a handhold on an arm or leg of another jumper as shown in 7.2. 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 feet and the grip that joins them.
 - 2.3.1 For VFS Clarification regarding random M) and O) 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 centre of the defined grips within a subgroup of competitors linked by grips.
 - 2. The geometric centre 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.
 - 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 and any foot inside the tunnel does not use the net for launch.

For VFS Entrance: Teams must enter the tunnel and staying stand up on the net in center of the airflow. The working time will start when both feet of any team member leave the net.

- 2.15. Working Time: is the period of time during which teams are scored on a performance which starts both feet of any team member leave the antechamber floor (tunnel net for VFS) 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 approximately vertical with the head down, towards the ground.
 - 2.19.2. "Head Up" orientation requires that the competitor's torso is approximately 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 back of the torso toward the earth. ("Backflying" is not currently used in VFS formations).

3. The Events

3.1. Event Description: 4-Way Indoor Formation Skydiving and Vertical Formation Skydiving 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:
 - i. one tie break round, if possible (for the first three placing's only). The tie break round will be the next drawn round of the competition,
 - ii. 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. For VFS mirror images 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 their own body within a subgroup or a scoring formation are permitted.
- 3.3.10 For VFS 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 two 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

- 4.4.1 The performance order for the first competition round of each event will be in the reverse order of the first ten placings in that event at the most recent IPC sanctioned World Indoor Parachuting Championships of the relevant Event. All teams not covered by this procedure will jump at the beginning of the round, with their jump order determined by a draw.
- 4.4.2 An updated reverse-order-of-jumping shall be implemented after every break in the competition jumps which occurs after a completed round where practical.

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. 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. The location and field of vision must be approved by the Chief Judge and the FAI Controller.
- 4.5.5. 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 allowed 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. 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 reperformance 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. A team that flies out of the range of the camera (too high) will not be granted a re-performance.

4.9. 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.
- 4.8.2. The wind tunnel configuration used for the competition will also be used for the official training performance.

5. Judging

5.1. Judging Procedure

The performances will be judged using video evidence.

5.2. Number of Judges

A minimum of three (3) judges must evaluate each team's performance.

5.3. Viewings/Review of the Video Evidence

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 performance will be conducted at normal or reduced speed between 50-90 percent of normal speed. At the request of the Event Judge a (3rd) third view of part(s) of the performance 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 speed to be used for the different Events. The freeze frame from the first viewing will be applied on each viewing.

5.3.1. 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. 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 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 jump has been judged. Corrections to the evaluation record can only be made before the Chief Judge signs the score sheet. All individual judge's 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 2.15.

6. Rules Specific to the Competition

- **6.1.** Title of the Competition: "___th FAI World/Continental Indoor Skydiving Championships" or "___th World Cup of Indoor Skydiving".
- **6.2.** Aims of World/Continental Championships and World Cups
 - 6.2.1. To determine World/Continental Champions or World Cup Winners of Indoor Formation Skydiving and Indoor Vertical Formation Skydiving in the:
 - 4-Way FS Event,
 - 4-Way FS Female Event
 - 4-Way VFS Event
 - 4-Way FS Junior Event
 - 4-Way VFS Junior Event
 - 6.2.2. and
 - To determine the world standings of the competing teams,
 - To establish Indoor Formation Skydiving and Indoor Vertical Formation Skydiving world records,
 - To promote and develop Indoor Formation Skydiving and 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.

6.3. Composition of Delegations:

- 6.3.1. Each delegation may be comprised of:
 - One (1) Head of Delegation,
 - One (1) Team Manager,
 - Team Coaches
- 6.3.2. At a World/Continental Championship:
 - One 4-Way team consisting of up to:
 - Five (5) 4-Way FS Competitors
 - One female 4-Way FS team consisting of up to:
 - Five (5) female 4-Way Competitors
 - Five (5) 4-Way VFS Competitors

- Five (5) Junior 4-Way FS Competitors
- Five (5) Junior 4-Way VFS Competitors
- 6.3.3. 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 Organiser and announced at the time of the bid.
- 6.3.4. No Competitor may compete in both the FS 4-Way Open event and the FS Female 4-Way event but may participate in one FS team and one VFS team.
- 6.3.5. Any Competitor that competes in two different events must be listed separately on the entry form for each event.
- 6.3.6 Junior competitors over the age of 15 or whose 15th birthday occurs during the calendar year in which the competition takes place may, if they choose, enter an open category event.

6.4. Program of Events:

- 6.4.1. The World/Continental Championships or World Cup is comprised of: Indoor Formation Skydiving:
 - Up to 10 rounds open.
 - Up to 8 rounds junior.

Indoor Vertical Formation Skydiving:

- Up to 10 rounds.
- 6.4.2. Time must be reserved before the end of competition to allow for the completion of the tie break round.
- 6.4.3. The competition will be organised during a maximum time frame of 3 competition days. Exceptions may be made where a bid is received for multiple FCE competitions at one time.
- 6.4.4 Where possible, junior events are to be run at a separate time to open events e.g. morning vs afternoon.
- **6.5.** Medals are awarded as follows:
 - All team members in the events will be awarded medals if placed First, Second or Third

7. Definitions of Symbols

- **7.1.** Coding in the Dive Pool annexes is as follows:
 - 7.1.1

Indicates direction of turn by the subgroup



7.1.2

Indicates turn by the subgroup in either direction



713

Indicates turns by all subgroups



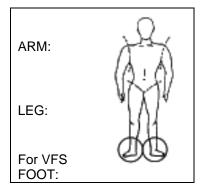
7.1.4 Indicates clarification of intent



7.1.5 Indicates clarification of intent



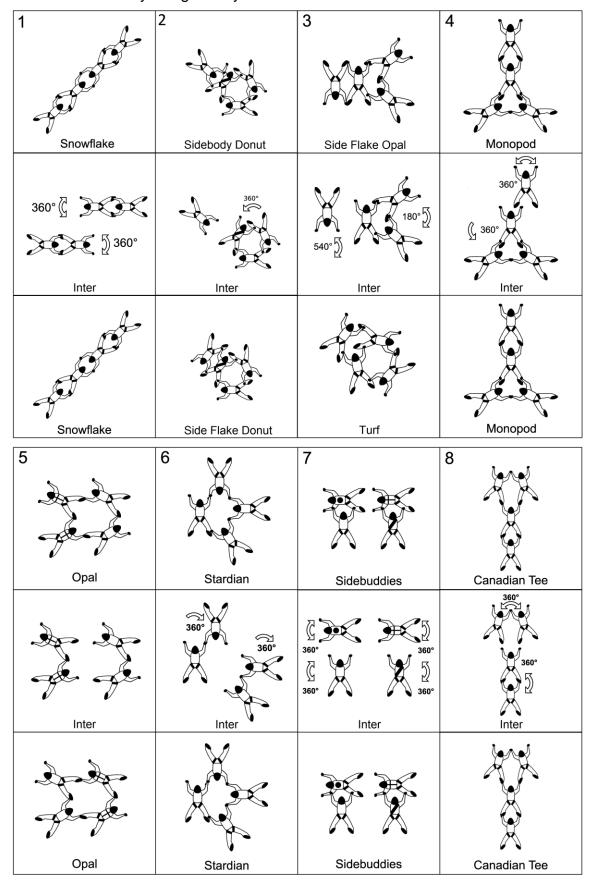
7.2. Visualisation for grip positions, ref 2.2.

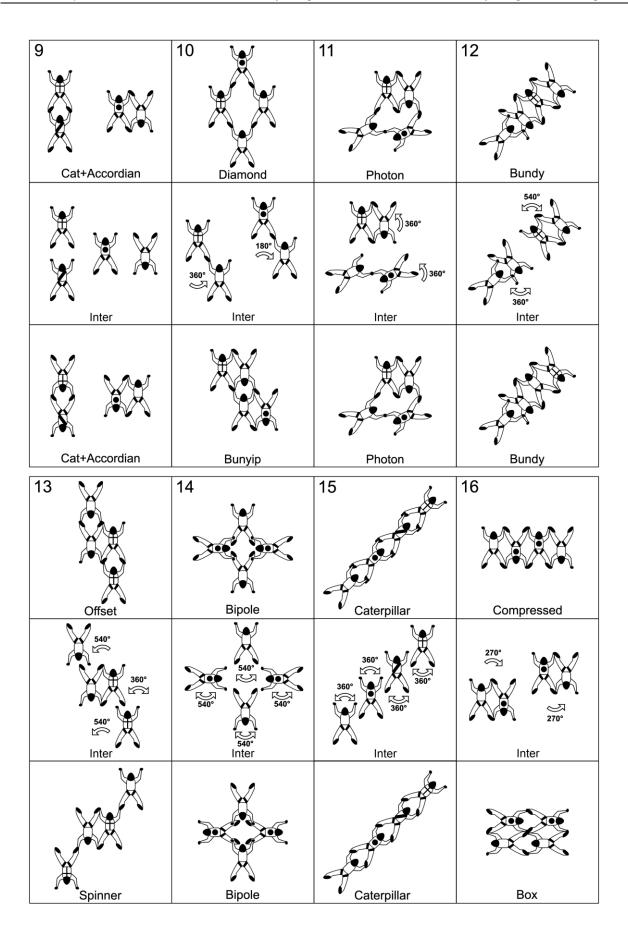


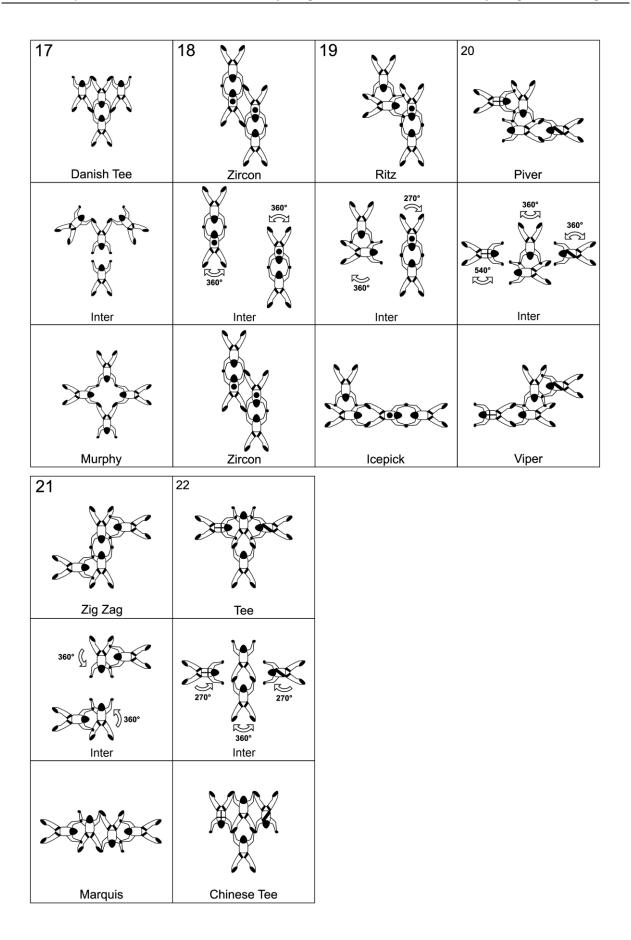
ADDENDA

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

ADDENDUM – ACurrent Formation Skydiving 4-Way Block Pool







ADDENDUM – BCurrent Formation Skydiving 4-Way Random Pool

Α 🔀	В	C	D
Unipod	Stairstep Diamond	Murphy Flake	Yuan
E	F	G	H
Meeker	Open Acordian	Cataccord	Bow
J Donut	K Hook	Adder	M
N	O	P	Q
Crank	Satellite	Sidebody	Phalanx

ADDENDUM - C

IPC FS Dive Pool Adjusted for Tunnel Sizes

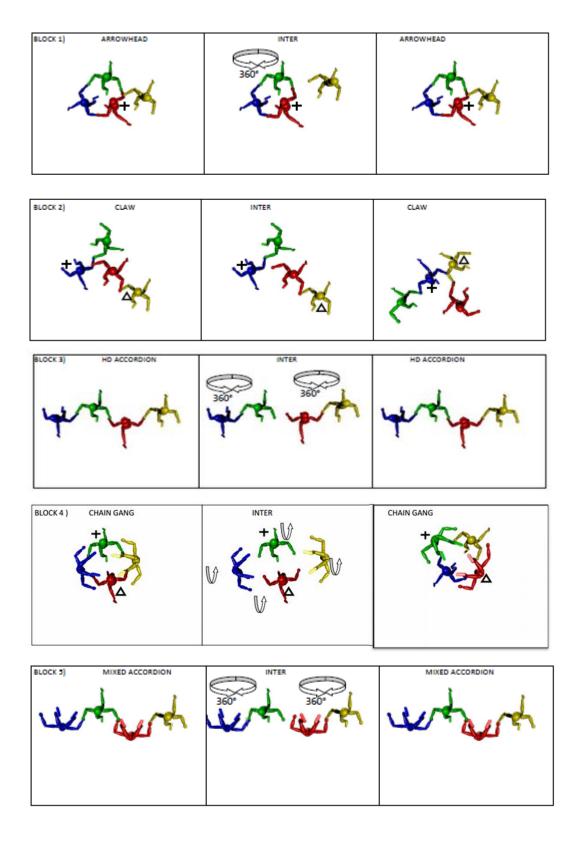
12 Foot Tunnel

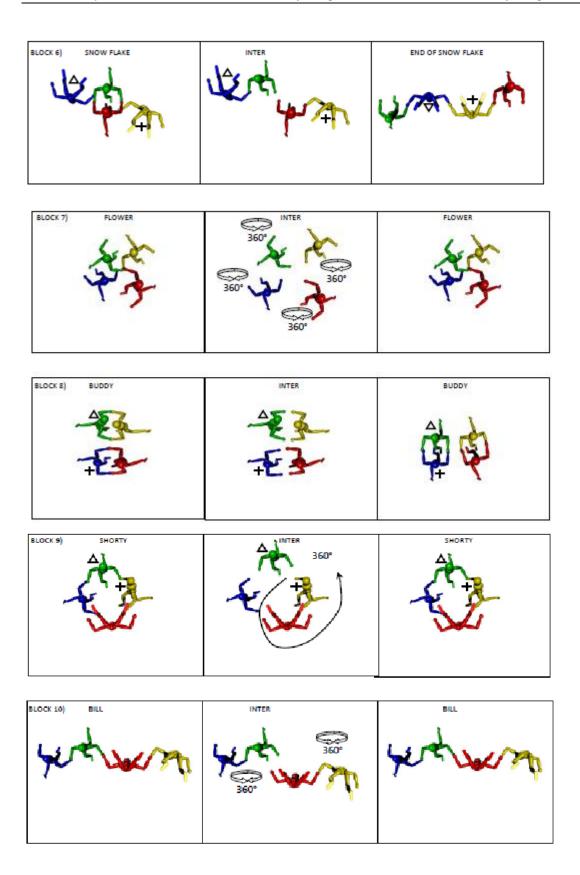
Category	Sequence	Random Formations	Blocks		
Open Junior	5 to 6 4 to 5	A - Q A - Q	3,5,6,7,9,11,14,15,16,17,18,21 6,7,9,11,14,15,18,21		
14 Foot Tunnel					
Category	Sequence	Random Formations	Blocks		
Open Junior	5 to 6 4 to 5	A - Q A - Q	All Blocks except Blocks 1 and 13 2.4.6.7.8.9.11.14.15.18.19.20.21.22		

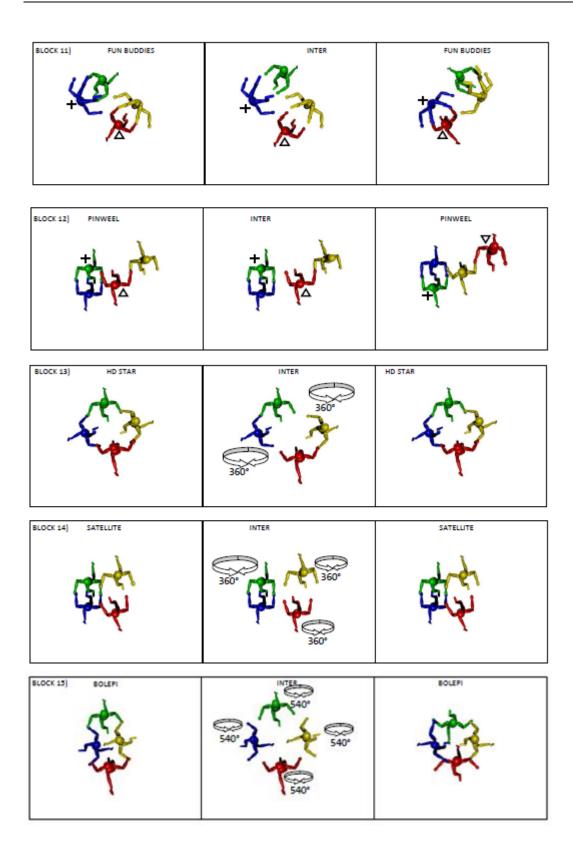
16 Foot Tunnel or bigger

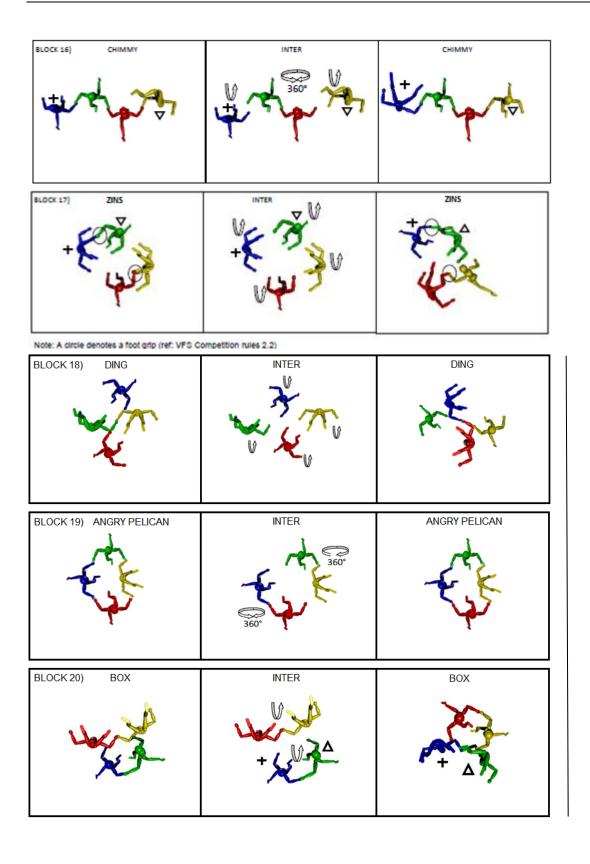
Category	Sequence	Random Formations	Blocks
Open	5 to 6	A - Q	All 22 Blocks
Junior	4 to 5	A - Q	1,2,4,6,7,8,9,11,13,14,15,18,19,20,21,22

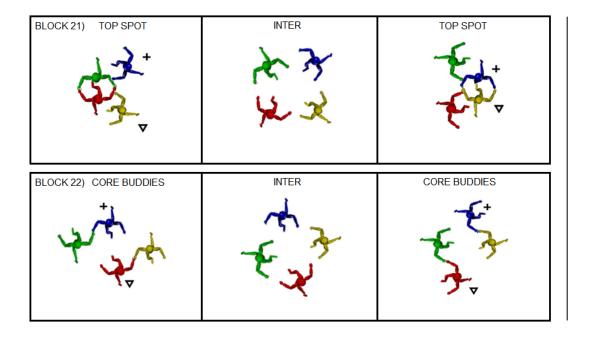
ADDENDUM - DCurrent Vertical Formation Skydiving 4-Way Block Pool



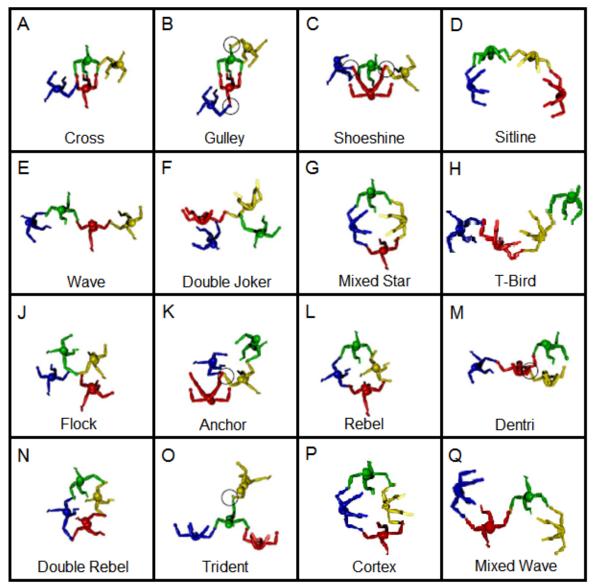








ADDENDUM - ECurrent Vertical Formation Skydiving 4-Way Random Pool



Note: A circle denotes a foot grip (ref. Competition rules 2.2)