

65th FAI / IPC PLENARY MEETING, VIENNA, AUSTRIA, 01 – 02 FEBRUARY 2014

Subject:	DRAFT INDOOR SKYDIVING ARTISTIC EVENTS COMPETITION RULES FOR 2014	Annex No. -	39
Author:	Ronald Overdijk, Chair, Artistic Events Committee	Agenda ref. -	17.6
Date:	03 December 2013	Total Pages	24



*Fédération
Aéronautique
Internationale*

Indoor Skydiving Competition Rules

For
Artistic Events

DRAFT version 112813

2014 Edition
Effective 1st June 2014

*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: sec@fai.org
Web: www.fai.org*

FEDERATION AERONAUTIQUE INTERNATIONALE

**Maison du Sport International, Av. de Rhodanie 54, CH-1007 Lausanne
Switzerland**

Copyright 2014

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 authorized 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.**

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 responsible¹¹. 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; 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

INTENTIONALLY LEFT BLANK

This document takes effect on the 1st of June 2014.

<i>TABLE OF CONTENTS</i>	<i>Page</i>
Chapter 1: FAI Authority	2
1.1 FAI authority	2
Chapter 2: Definitions of Words and Phrases Used in these Rules	2
2.1 Performer/Team	2
2.2 Heading	2
2.3 Move	2
2.4 Grips and Docks	2
2.5 Routine	2
2.6 Scoring Random	2
2.6 Total Separation	2
2.6 Draw	2
2.7 Working Time	2
Chapter 3: The Events	2
3.1 Discipline	2
3.2 Objective of the Events	2
3.3 Flight Chamber Entry	3
3.4 World Champions	3
Chapter 4: General Rules	3
4.1 Equipment	3
4.2 Order of Flights	3
4.3 Video Recording	3
4.4 Re-flights	4
4.5 Freefall	4
Chapter 5: Rules Specific to the Event	4
5.1 Performers/Teams	4
5.2 Routines	4
5.3 Number of Rounds	4
5.4 Order of Routines	4
5.5 Finals	4
Chapter 6: Judging and scoring	4
6.1 General	4
6.2 Scoring Free Routines	5
6.3 Scoring Freestyle Compulsory Routines	5
6.4 Scoring Freeflying Compulsory Routines	6
6.5 Score Calculation	6
6.6 Judging Rules	6
6.7 Speed Setting and Training Flights	7
Chapter 7: Rules Specific to the Competition	7
7.1 Composition of Delegations	7
7.2 Competition Schedule	7
Annexes	7
Addendum A1 – Freestyle Compulsory Sequences	8
Addendum A2 – Freeflying Compulsory Sequences	10
Addendum B – Basic orientations, body positions and definitions	13
Addendum C – Difficulty	16
Addendum D – Routine description	18

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. A Freestyle competition entry consists of one (1) Performer.
A Freeflying Team is composed of two (2) Performers and an optional alternate Performer.
- 2.2. Heading: the direction in which the front of the torso of the Performer faces.
- 2.3. Move: a change in body position, and/or a rotation around one or more of the three (3) body axes, or a static pose. See Addendum B.
- 2.4. Grips and Docks.
- 2.4.1. Grip: a recognisable stationary contact of the hand(s) of one Performer on a specified part of the Body of the other Performer, performed in a controlled manner.
- 2.4.2. Dock: a recognisable stationary contact of the foot (feet) of one Performer on a specified part of the Body of the other Performer, performed in a controlled manner.
- 2.5. Routine: a sequence of moves performed during the working time.
- 2.5.1. Compulsory Routine: a routine composed of Compulsory Sequences or Randoms.
- For Freestyle, the Compulsory Routines consist of two (2) Compulsory Sequences and other moves at the Performers' discretion. The order in which these Compulsory Sequences and other moves are performed is chosen by the Performer.
 - For Freeflying, the Compulsory Routines consist of five (5) Randoms drawn from a pool described in the relevant Addenda A. The order in which these Randoms are performed is as drawn. Teams perform the sequence of Randoms as many times as possible within the working time.
- 2.5.2. Free Routine: a routine composed of moves chosen entirely by the Performer or Team.
- 2.6. Scoring Random: is a Random which is correctly completed in the drawn order and which, apart from the first Random after flight chamber entry, must be preceded by a correctly performed total separation. All Randoms and total separations must be clearly presented to the Judges.
- 2.7. Total Separation: is when all Performers show at one point in time they have released all their grips/docks and no part of their arms/feet has contact with another Body.
- 2.6. The Draw:
- 2.6.1. The Draw for the Randoms will be done publicly and supervised by the Chief Judge. Teams will be given not less than two (2) hours knowledge of the results of the Draw before the competition starts.
- 2.6.2. The Randoms will be drawn as follows: all Randoms, as shown in Addendum-A2 Freeflying, will be singularly placed in one (1) container. Individual withdrawal from the container, without replacement, will determine the order of Randoms to be performed in each Compulsory routine. Each Compulsory routine will be drawn so as to consist of five (5) Randoms.
- 2.7. Working time: the period of time during which a Performer or Team may perform a routine during a Flight.
- Freestyle: Working Time is 45 seconds.
 - Freeflying Free Rounds: Working Time is 45 seconds.
 - Freeflying Compulsory Rounds: Working Time is 35 seconds.
- 2.7.1. Working time starts the instant any Performer or Team Member enters the flight chamber door, as determined by the Judges. The details on the entry specifics that will start working time must be as specified in the approved and sanctioned bid document.
- 2.7.2. At the end of working time, a signal will be given and the Performer or Team will have 15 seconds to exit.
- 2.7.3. Each Performer or Team will be allocated 90 seconds of flight chamber access per round.

3. The events

- 3.1. Discipline: the discipline comprises Freestyle and Freeflying. There is no gender separation.
- 3.2. Objective of the Events: the objective for the Performer or Team is to perform a sequence of moves with the highest possible merit.
- 3.3. Flight Chamber Entry: Only one (1) doorway leading into the flight chamber will be used for entries and exits. The tunnel will be set to the correct speed decided by the Performer or Team during the Speed Setting time. When the tunnel is at the correct speed, a signal will be given to the Performer or Team.
- 3.4. World Champions:
- 3.4.1. After all completed round(s), World Champions in Freestyle and in Freeflying, will be declared.
- 3.4.2. The Freestyle World Champions and the Freeflying World Champions are the Performers or Teams with the highest total score for all completed rounds. If two (2) or more Performers or Teams have equal scores, then if time permits, the first three (3) places will be determined by a tie-break Free Round. If a tie still exists, the procedure as in para. 5.5.3. will apply (including all completed free rounds) until a clear placing is determined.
- 3.4.3. Prizes and awards are awarded as follows:
- All Performers or Team Members in the events will be awarded medals if placed First, Second or Third.
 - The flags of the countries of the Performers or Teams in the events placed First, Second and Third shall be flown and the national anthems of the countries of the Teams placed First shall be played.
 - Diplomas are awarded to all Competitors that are placed First to Tenth.

4. General rules

- 4.1. Equipment: Performers and Team Members are responsible for outfitting themselves in their own suitable clothing and footwear, including flight suits, helmets, goggles, and ear plugs. The use of elbow and knee pads is recommended.
- 4.2. Order of Flights: The order of Flights for the first competition round of each event will be in the reverse order of the placings in that event at the most recent IPC sanctioned World Indoor Skydiving Championships or World Cup of Artistic Events. All Performers or Teams not covered by this procedure will fly at the beginning of the round, with their order of Flights determined by a draw. After round five (5) the final rounds will start. The final rounds will be executed by an updated reverse-order-of-flights which shall be implemented after round five (5) and six (6). The relevant order of Flights will be maintained throughout the competition, except for any logistical changes deemed necessary by the Chief Judge and the Meet Director.
- 4.3. Video Recording.
- 4.3.1. For the purpose of these rules, "video equipment" shall consist of the complete video system used to record the video evidence of the Performer's or Team's performance, including the camera(s), recording media, cables and power source. The video equipment must be able to deliver a High Definition 1080 type digital signal with a minimum frame rate of 25 frames per second through memory card (minimum class 10), approved by the Chief Judge.
- 4.3.2. The Organiser shall provide the video evidence required to judge each Flight and to show the Performer's or Team's performance to third parties. A backup recording of all competition Flights will be made.
- 4.3.3. The Organiser is responsible for assuring the compatibility of the video equipment with the scoring system.
- 4.3.4. The camera(s) must be fixed static to the mount and on the same side of the tunnel as the Judges' live viewing gallery location.
- 4.3.5. The flight chamber door that will be used for entry and exit shall be fully shown in the video evidence.
- 4.3.6. The start and finish of working time will be indicated in the tunnel and shall be clearly visible in the video evidence.
- 4.3.7. The video viewing angle and framing will be published not less than 90 days before the start of competition. All back up video equipment shall have the same viewing angle and framing.
- 4.3.8. The quality of the video image must be approved by the Chief Judge prior to the start of the official training Flights. If any video equipment does not meet the requirements as determined by the Chief Judge, this equipment will be deemed to be unusable for the competition.

6. Judging and scoring

6.1. General: Once any Performer or Team Member has entered the flight chamber, the Flight shall be evaluated and scored.

6.2. Scoring Free Routines. Judges give the following judging criteria a score, between 0,0 and 10,0 expressed as a number up to one decimal point, taking into account the following guidelines;

Technical:

- *Difficulty*: The degree of difficulty of all moves and transitions and team work (Freeflying only) of the Flight. Difficulty includes, but not limited to, the ability to move vertical and horizontal, and perform multiple rotations in a belly-down, back-down, sideways and/or head-up orientation and any other possible orientation as well as the ability to combine technical skills and create complex effects of movement. See Addendum C.
- *Precision, control*: Ability of the Performer or Team to demonstrate body control skill (including pointed toes where appropriate for Freestyle), steadiness and accuracy of remaining within the video frame and appropriate control of proximity (Freeflying only) of all Team Members.

Presentation:

- *Creativity*: Routine composition is original with new moves, original choreography and/or new presentation of old moves. Routine has a nice flow with a definite beginning and a definite ending and full use of working time. Routine is aesthetically pleasing to watch throughout, with/without dynamic variety.
- *Delivery*: Good use of space within the camera frame and facing appropriate directions to "present" to the camera.

6.2.1. Bonus: Up to 0.5 additional points, allowing a maximum score of 10.5 points for the Free Routine, can be awarded to any Performer or Team at the Judges' discretion for originality, timing and innovative manoeuvres. This bonus score will be clearly shown with the scores.

6.2.2. Performers and Teams who devise different routines for each of the Free rounds may score higher than those who perform the same routine for each round, depending on the quality of Technical and Presentation merits.

6.3. Scoring Freestyle Compulsory Routines: Judges give a score for the Performer (between 0,0 and 10,0, up to one decimal point) for Presentation (as per Free Routine) and for each of the four (4) Compulsory Sequences, using the following guidelines:

10 points	Move is performed and filmed flawlessly with no noticeable mistakes.
8 points	Move is performed or filmed with some small mistakes.
5 points	Move is performed and filmed with several medium mistakes.
3 points	Move is performed and filmed with one or several major mistakes.
0 points	Move not performed or identifiable or unjudgable camera image.

Small mistake examples

- finish slightly off heading, slight wobble, momentary cropped by video frame, etc.

Medium mistake examples

- significantly off heading, wobble, not enough rotation, etc.
- required elements performed incorrect, turning the wrong direction, etc.
- toes not pointed, knees bent .
- momentarily out of video frame or distance errors for about 20 % or more of the Compulsory Sequence, etc.

Commentaire [EM1]: Do we really want bonus scores ?

Commentaire [EM2]: Difficult, best to delete.

Major mistake examples

- completely missing required elements or performed so poorly that move is barely recognizable.
- out of video frame for about 50 % or more of the Compulsory Sequence, etc.

Presentation in the Compulsory Routines is scored for the beginning and the end of the routine, and move(s) performed between the Compulsory Sequences. A Compulsory Routine without any additional moves for Presentation will result in a score of zero (0) for Presentation.

- 6.3.1.** The Judges will only score the Compulsory Sequences they recognize. If an attempt is made for a Compulsory Sequence and the Judges recognize this as such, scoring for that sequence will commence. The judging of each sequence begins when the Judges see the Performer or Team beginning the sequence from the described beginning position (after a transition from the previous move with or without a momentary stop). The judging of each sequence ends when the Judges see the Performer or Team completes or abandons the performance requirements of that sequence.
- 6.4.** Scoring Freelying Compulsory Routines. Judges give a score for the Team as follows;
- 6.4.1.** Each Scoring Random within the working time will receive one (1) point. Teams may continue earning Scoring Randoms by continually repeating the drawn Randoms.
- 6.4.2.** Each incorrect, incomplete or non-judgable Random, which is followed within working time by a total separation, will lead to a score of zero (0) points for that Random.
- 6.4.3.** A correctly completed Random preceded by an incorrect total separation will not receive a point and will result in a deduction of one (1) point.
- 6.4.4.** An omitted Random will lead to a deduction of two (2) points. An omission is one of the following:
- A Random is missing from the drawn sequence.
 - No clear intent to build the correct Random is seen and another Random is presented and there is an advantage to the Team resulting from the substitution.
- 6.4.5.** A completed Random involving deliberate use of the net/tunnel walls will not receive a score and will result in a deduction of one (1) point.
- 6.4.6.** A majority of the Judges must agree on the evaluation of correct, incorrect or non-judgable Randoms, of the total separation requirement and of an omission.
- 6.4.7.** The minimum number of points for the Freelying Compulsory routine is zero (0) points.
- 6.4.8.** If, after the viewings are completed and within fifteen (15) 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 Flight in question be reviewed at reduced speed, 60-90 percent of normal speed. If the review results in a unanimous decision by the Judges on the part(s) of the performance in question, the score for the Flight will be adjusted accordingly. Only one review is permitted for each Flight.
- 6.4.9.** All the scores for each complete Freelying Compulsory Round will be recalculated by means of the following formula: Each round will be scored between seven (7) and ten (10). The lowest scoring Team will be awarded seven (7) points, and the highest scoring Team will be awarded ten (10) points. The scores for all other Teams will be calculated on a proportionate scale between these scores.
- 6.5.** Score calculation: The score for each routine is calculated as follows:
- Freestyle Compulsory Routines: for each Compulsory Sequence and Presentation, the Judges' scores will be averaged with no rounding applied. The average scores will be added, and the result will be divided by three (3), then rounded to the first decimal place.
 - Free Routines: for the Technical and Presentation criteria, the Judges' scores of both Technical and Presentation will be averaged separately with no rounding applied. The average scores will be added, and the result will be divided by two (2), then rounded to the first decimal place.
- 6.5.1.** Rounding must be done as follows: intermediate values must be converted from two decimal places to one, by rounding to the nearest tenth, except where the second decimal digit is exactly halfway between the two values, where it must be rounded to the higher of the two.
- 6.5.2.** Total scores for the events are calculated by adding Performer's and Team's official scores of all completed rounds.
- 6.5.3.** All scores for each Judge will be published.

- 6.6.** Judging rules:
- 6.6.1.** Viewing the Flights:
- 6.6.1.1.** The Judges will watch each Flight live one (1) time for all Performers and Teams and a second viewing from video with a third viewing optional at the discretion of the Event Judge. Viewings must be at normal speed.
- 6.6.1.2.** Freeflying Compulsory Routines: The Judges will watch each Flight one (1) time at normal speed to determine points in time. If a judgment call occurs, a second viewing will be conducted at normal or reduced speed between 60-90 percent of normal speed. At the request of the Event Judge, a third view of part(s) of the Flight can be conducted at normal or reduced speed. The speed of the second and third viewings will be determined by the Event Judge.
- 6.6.1.3.** At the end of working time, freeze frame will be applied on each video viewing, based on the timing taken from the first video viewing only.
- 6.6.1.4.** Apart from the first view, which shall be performed from the flight chamber viewing gallery, the Flights shall be judged using the video evidence.
- 6.6.2.** A panel consisting of at least three (3) Judges must evaluate each Performer's or Team's Performance. Where possible a complete round shall be judged by the same panel.
- 6.6.3.** All Judges will evaluate all judging criteria.
- 6.6.4.** The Judges will use an electronic scoring system to record the evaluation of the performance. The Judges may correct their evaluation record after the Flight has been judged. Corrections to the evaluation record can only be made before the Chief Judge signs the score sheet.
- 6.6.5.** The chronometer will be operated by the Judges or by (a) person(s) appointed by the Chief Judge, and will be started when a Performer or Team Member enters the flight chamber.
- 6.7.** Speed Setting and Training Flights :
- 6.7.1.** Speed Setting: Three (3) minutes per Performer or Team will be allocated for speed setting.
- 6.7.2.** Speed Setting and Training Flights may only take place prior to the start of the competition.
- 6.7.3.** Each Performer and Team in each event will be given the option of two (2) official training Flights prior to the competition. The video angle, framing and configuration plus the judging and scoring systems to be used in the competition will be used for the official training Flights.
- 6.7.4.** Before the start of the training Flights, the team captain has the option to explain the delivered Free Routine description sheet(s). If no training Flights are possible, Performers and Teams can deliver a maximum of two (2) previous training Flights for scoring and move explanation. For these (previous and official training) Flights, no scores for Presentation will be given.

7. Rules specific to the competition

- 7.1.** Composition of Delegations: Each Delegation may be comprised of:
- One (1) Head of Delegation
 - One (1) Team Manager
 - A maximum of two (2) Freestyle Performers and two (2) Freeflying Teams for a WISC or Continental Championship.
 - The number of Performers and Teams for a World Cup will be up to the organiser.
- 7.2.** Competition schedule: The competition will be organised in accordance with one (1) official training day and a maximum time frame of four (4) consecutive competition days. Time must be reserved before the end of the competition to allow for the completion of the final rounds.

ADDENDA A1, A2, B, C, D

- Addendum A1: Freestyle Compulsory Sequences
- Addendum A2: Freeflying Randoms
- Addendum B: Definitions, Body Positions, Orientations and Rotations
- Addendum C: Difficulty
- Addendum D: Routine Description Forms

ADDENDUM – A1
FREESTYLE COMPULSORY SEQUENCES
PERFORMANCE REQUIREMENTS & JUDGEMENT CRITERIA

- The order in which these Compulsory Sequences can be performed is determined by the Performer.
- The Performer is requested to submit the order of the Compulsory Sequences at the start of the competition to the Chief Judge. (see para 5.2.1. and addendum D)
- Each Performer must ensure that clothing and/or their position in the video frame do not hinder the ability for Judges to clearly see the performance requirements being met. (E.g. if Judges cannot see straight arms and/or legs then they may assume that the Performer does not have straight arms and/or legs).
- Toes must be pointed.
- The judging of each sequence begins when the Judges see the Performer beginning the sequence from the described beginning position (after a transition from the previous move with or without a momentary stop).
- The judging of each sequence ends when the Judges see the Performer completes or abandons the performance requirements of that sequence.

FIRST COMPULSORY ROUND (ROUND 2)

FR-1 Helix Spin

Helix Position:

- Body must be in head-up orientation during the whole sequence.
- Torso must be vertical and straight.
- One leg must be straight down with the knee straight and in line with the torso.
- Other leg is bent forward about 70° to 90° at the hip and the knee bent greater than 90°.
- The upper part of the bent leg is rotated at the hip such that the lower leg will be deflected inward more than 60° and crossing the front of the straight leg when viewed directly from in front. The bent leg or foot must not touch the other leg.
- Either leg may be the bent leg.

Helix Spins

- The Helix must spin rapidly, with a minimum of five (5) rotations performed within five (5) seconds from the start of the first rotation.
- The rotation direction must be towards the foot of the bent leg. (If the right leg is bent across the left, it rotates to the left, and vice versa.)
- Torso must stay head-up and not tilt or wobble during the rotations.

FR-2. Straddle Loops Sequence

Back Layout Half Loop

- Beginning shall be from the straddle position in a head-up orientation, facing the camera.
- One complete 180° back layout loop must be performed in the layout position.
- Half loop must be about a horizontal axis, without tilting or changing the heading. Looping motion must be smooth.
- Torso must be straight and legs in line with torso, without any bend at the waist.
- A momentary stop in a head-down orientation in the straddle position should follow the half loop, without changing heading.

Back Layout One and Half Loop

- After the momentary stop, one and half (540°) back layout rotation must be performed in the layout position.
- One and half loop must be about the same horizontal axis as the first half loop, without tilting or changing the heading. Looping motion must be smooth.
- Torso must be straight and legs in line with torso, without any bend at the waist.
- The sequence must end in the straddle position in a head-up orientation, facing the camera.

SECOND AND THIRD COMPULSORY ROUNDS (ROUND 5)

FR-3. *Head Up Straddle Spins*

- Performer is in straddle position in head-up orientation, facing the camera.
- The straddle must spin rapidly, with three and a half (3,5) rotations performed within five (5) seconds from the start of the first rotation. Spins can be in either direction.

FR-4. *Head-down Loop Twist Sequence*

Back Layout Loops, one with Twist

- Beginning is from a layout position in head-down orientation, with the Performer's side to the camera.
- Three (3) complete 360° back layout rotations must be performed.
- A full twist must be performed within and evenly executed throughout the second loop.
- Looping movement must remain about a horizontal axis, without tilting or changing heading.
- Torso must be straight and legs in line with torso, without any bend at the waist.
- Looping motion must be smooth.
- The sequence must end in a layout position in a head-down orientation, on the same heading as the beginning.

ADDENDUM – A2
FREEFLYING RANDOMS
PERFORMANCE REQUIREMENTS & JUDGEMENT CRITERIA

RANDOMS - HORIZONTAL ORIENTATION

BB-1. Back-Down Star

- Both Performers are in the back-down orientation.
- The right hand of each Performer must be in a grip with the other Performer's left hand.

BB-2. Belly Star

- Both Performers are in the belly-down orientation.
- The right hand of each Performer must be in a grip with the other Performer's left hand.

BB-3. Back-Down Compressed Accordion

- Both Performers are in the back-down orientation.
- The right hand of each Performer must be on the right leg of the other Performer (or left hand on left leg).

BB-4. Mixed Compressed Accordion

- One Performer is in the belly-down orientation, the other Performer is in the back-down orientation.
- The right hand of one Performer must be on the left leg of the other Performer and the left hand of the other Performer must be on the right leg of the first Performer.

BB-5. Back-Down Side Body

- Both Performers are in the back-down orientation.
- One Performer takes grips on the other Performer's arm and leg of one side.

BB-6. Mixed Cat

- One Performer is in the belly-down orientation, the other Performer is in the back-down orientation.
- The right hand of back-down Performer must be on the left leg of the belly-down Performer and the left hand of back-down Performer must be on the right leg of the belly-down Performer.

BB-7. Back-Down Open Accordion

- Both Performers are in the back-down orientation.
- The right hand of one Performer must be in a grip with the right hand of the other Performer (or left hand gripping left hand).

BB-8. Back-Down Stair-Step

- Both Performers are in the back-down orientation.
- The right hand of one Performer must be on the left leg of the other Performer (or left hand on right leg).

BB-9. Mixed Side Body

- One Performer is in the belly-down orientation, the other Performer is in the back-down orientation.
- The belly-down Performer takes grips on the back-down Performer's arm and leg of one side.

RANDOMS - VERTICAL ORIENTATION

VF-1. *Double Spock*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation.
- Each Performer takes a single hand grip on the top of the other Performer's head.

VF-2. *Vertical Compressed Accordion*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation.
- The right hand of each Performer must be on the right leg of the other Performer (or left hand on left leg).

VF-3. *Sole-to-Sole*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation.
- One Performer performs a single sole dock on the sole of the other Performer.

VF-4. *Double Grip Vice-Versa*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation.
- The right hand of each Performer must be in a grip with the other Performer's right hand and the left hand of each Performer must be in a grip with the other Performer's left hand.

VF-5. *Double Grip Head-down*

- Both Performers are in the head-down orientation.
- The right hand of each Performer must be in a grip with the other Performer's left hand.

VF-6. *Joker*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation.
- The right hand of one Performer must be in a grip on the other Performer's left arm (or left hand to right arm).

VF-7. *Mind Warp*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation.
- The head-up Performer takes a double-hand grip on the head-down Performer's head.

VF-8. *Stair Step Head-down*

- Both Performers are in the head-down orientation.
- The right hand of one Performer must be in a grip on the other Performer's left leg (or left hand on right leg).

VF-9. *Sixty-Nine*

- One Performer is in the head-up orientation, the other Performer is in the head-down orientation, facing each other.
- The right hand of head-down Performer must be on the right leg of the headup Performer and the left hand of head-down Performer must be on the left leg of the head-up Performer.

RANDOMS - HEAD-UP ORIENTATION

HU-1. Totem

- Both Performers are in the head-up orientation, facing each other.
- One Performer demonstrates a feet-to-shoulder dock, a separate foot on each side of the head of the other Performer.
- The left sole of the top Performer must be on the right shoulder of the other Performer and the right sole of the top Performer must be on the left shoulder of the other Performer.

HU-2. Double Hand-to-Foot Grip

- Both Performers are in the head-up orientation, facing each other.
- The right hand of one Performer must be on the other Performer's left foot and the left hand on the other Performer's right foot.

HU-3. Double Grip Head-Up

- Both Performers are in the head-up orientation, facing each other.
- The right hand of each Performer must be in a grip with the other Performer's left hand.

HU-4. Hand-to-Hand Single Grip Head-Up

- Both Performers are in the head-up orientation.
- The right hand of one Performer must be in a grip with the other Performer's right hand (or left hand to left hand).

HU-5. Stair-Step Totem

- Both Performers are in the head-up orientation, facing each other.
- One Performer demonstrates a feet-to-knees dock, a separate foot on each knee of the other Performer.
- The left sole of the top Performer must be on the right knee of the other Performer and the right sole of the top Performer must be on the left knee of the other Performer.

HU-6. Single Spock Head-Up

- Both Performers are in the head-up orientation.
- One Performer takes a single hand grip on top of the other Performer's head.

HU-7. Single Hand-to-Foot Grip Head-Up

- Both Performers are in the head-up orientation.
- The right hand of one Performer must be in a grip with other Performer's left foot (or left hand to right foot).

HU-8. Out-Facing Double Grip Head-Up

- Both Performers are in the head-up orientation, facing away from each other.
- The right hand of each Performer must be in a grip with the other Performer's left hand.

HU-9. Single Foot-to-Foot Dock Head-Up

- Both Performers are in the head-up orientation.
- The right foot of one Performer must dock with other Performer's right foot (or left foot to left foot).

HU-10. Double Spock Head-Up

- Both Performers are in the head-up orientation.
- Both Performers take a single hand grip on top of the other Performer's head.

ADDENDUM B DEFINITIONS, BODY POSITIONS AND BASIC ORIENTATIONS

A. DEFINITION BODY PARTS

A Body consists of the entire Performer and their equipment.

A Performer's Body is defined in specified parts, as follows:

- head: the part of the body above the neck.
- shoulder: the upper part of the body between the neck and the upper arm.
- torso: the body, including the shoulder, but excluding arms, legs, head and neck.
- arm: the whole arm from the shoulder, including upper arm, lower arm, wrist and hand (the shoulder is excluded).
- upper arm: the part of the arm between the shoulder and the elbow.
- lower arm: the part of the arm between the elbow and the wrist.
- hand: the part of the arm past the wrist.
- leg: the whole leg from the pelvis, including the upper leg, knee, lower leg and foot.
- upper leg: the part of the leg between the pelvis and the knee.
- lower leg: the part of the leg between the knee and the ankle.
- foot: the part of the leg past the ankle.
- sole: that part of the foot on which a person stands.

Grips can be taken and docks can be placed on these parts.

B. BODY POSITION

The body positions define the relationship of the limbs to the torso. This includes the angle of the legs relative to the torso and the amount of bend at the hips and waist, knees and ankles. The arms are left free to control the position. For description purposes on heading, torso means the front of the torso.

B-1. Layout Position

- The torso is straight, with no bend at the waist (a slight arch is allowed).
- The legs are together.
- The legs are straight, and in line with the torso.
- The head is in line with the torso.

B-2. Stag Position

- The torso is straight, with no bend at the waist (a slight arch is allowed).
- One leg is straight and in line with the torso.
- The other leg is bent forward at the hip and the knee is bent back to place the toe beside the knee of the straight leg. The bent leg is bent at least 90° at the knee.
- The head is in line with the torso.

B-3. Straddle Position

- The torso is straight, with no bend at the waist (a slight arch is allowed).
- The legs are split apart, from side to side, with at least a 90° angle between them.
- The legs are straight.
- The head is in line with the torso.

B-4. Pike Position

- The torso is bent forward at the waist, such that the angle between the torso and thighs is less than 90°.
- The legs are together.
- The legs are straight.

B-5. Straddle Pike Position

- The torso is bent forward at the waist, such that the angle between the torso and the thighs is less than 90°.
- The legs are split apart, from side to side (in a Straddle), with at least a 90° angle between them.
- The legs are straight.

B-6. Split Position

- The torso is straight, with no bend at the waist (a slight arch is allowed).
- The legs split apart from front and back, with at least a 90° angle between them.
- The front leg is straight, the back leg as straight as possible.
- The head is in line with the torso.

B-7. Tuck Position

- The torso is bent forward at the waist such that the angle between the torso and thighs is less than 90°.
- The legs are bent at the knees, such that the angle between the upper and lower legs is less than 90°. The knees are not necessarily all the way up against the chest.
- The legs are together.

B-8. Tee Position

- The torso is straight, with no bend at the waist.
- One leg is extended in front of the torso, at 90° to the torso.
- The other leg is straight in line with the torso.
- The legs are straight.

B-9. Sit Position

- The torso is straight.
- Both legs are bent at the hips and at the knees, at an angle of about 45°.
- The lower legs are to be parallel to the torso.

B-10. Compass position

- Torso is vertical and straight, with no bend at the waist.
- One leg is straight down.
- The other leg is bent forward 90° at the hip (horizontal), with the leg straight
- Either leg may be the forward leg.

C. ORIENTATIONS

There are six (6) different basic orientations which a body can have to the relative wind or floor. These define which way the torso is oriented, and the orientation is the first way to categorise the poses.

C-1. Belly-down Orientation

The torso is horizontal, on its front, facing down towards the floor.

C-2. Back-down Orientation

The torso is horizontal, on its back, facing up towards the ceiling.

C-3. Sideways Orientation

The torso is horizontal, on its side, with either side facing towards the floor. The chest is facing the tunnel wall.

C-4. Head-up Orientation

The torso is vertical with the head up, towards the ceiling.

C-5. Head-Down Orientation

The torso is vertical with the head down, towards the floor.

D. ROTATION AXES

Most moves involve some sort of rotational motion of the body. A total of five (5) axes are required and sufficient to describe all possible rotational motions.

D-1. Earth/Wind Axes

There are two inertial axes which stay fixed with respect to the relative wind (or floor).

Vertical Axis

The vertical axis remains parallel to the relative wind, (pointing from the ceiling to the floor).

Horizontal Axis

The horizontal axis is any axis perpendicular (90°) to the relative wind, (pointing to the tunnel walls at a 90° angle). It may have any heading (pointing towards any desired point on the horizon).

D-2. Body Axes

There are three (3) body axes which stay fixed with respect to the Performer's body.

Body Head-Toe Axis

The body head-toe axis is oriented lengthwise through the Performer's torso, pointing from head to toe. (in a layout position, e.g. head and toes are in the same line)

Body Front-Back Axis

The body front-back axis is oriented forwards and backwards through the Performer's belly, pointing from front to back.

Body Left-Right Axis

The body left-right axis is oriented sideways through the Performer's hips, pointing from left to right.

E. BASIC ROTATIONAL ACTIONS

There are four (4) basic rotational actions which form the basis for most moves.

E-1. Turns

Turns in general involve a rotation about the vertical axis such that the heading is changing. The body can be in any orientation while performing a turn.

E-2 Rolls

A roll is a rotation about the body head-toe axis when that axis is aligned with the horizontal axis.

E-3. Loops

A loop is a head-over-heels rotation around the horizontal axis, initiated about either the body left-right axis or the body front-back axis, when either of these axes are aligned with the horizontal axis. The body goes through a head-up position and a head-down position during the course of the loop. A loop is considered complete when the head has travelled 360° around the horizontal axis from the point at which is started. A loop can start from any orientation. There are three (3) kinds of loops. Note that loops are referred to by the direction in which the loop is initiated, since in the case of twisting loops, the direction in which the loop completes may be different from the direction at the start.

Back Loop

A back loop is a loop where the rotation is initiated about the body left-right axis with the torso rotating backwards.

Front Loop

A front loop is a loop where the rotation is initiated about the body left-right axis with the torso rotating forwards.

Side Loop

A side loop is a loop where the rotation is initiated about the body front-back axis with the torso rotating sideways.

E-4. Twist

A twist is a rotation about the body head-toe axis when combined with a loop. A single or full twist is defined to be a 360° rotation about the body head-toe axis. The amount of twist contained within a loop is the amount of twisting rotation completed after a 360° looping rotation has been performed, when measured from the point in the loop at which the twist was first initiated. Twists may be initiated at any position in the loop and in any direction.

ADDENDUM – C DIFFICULTY

'Difficulty' is the combined result of several factors. Moves are classified from very easy to very difficult. The overall performance of the Flights (poses, moves and transitions) counts for difficulty. In general, difficulty factors are:

Easy	Difficult
Large support base	Small support base
Rotations on 1 axis	Rotations on >1 axis (in which use of 3 axes is more difficult than use of 2 axes)
Transitions between moves with the same axes	Transitions between moves with different axes
Single spins in loops	Multiple spins in loops
Single moves	Consecutive moves
Body position not kept during the movement	Ideal body position maintained throughout the movement
No direction change	Reversal of direction
Random Movements	Precisely Choreographed Movements
Eye contact	No eye contact

According to this list of difficulty factors, the following are examples only of the grading:

Freeflying					
Manoeuvres	Very easy	Easy	Moderate	Difficult	Very difficult
Carving head down	Inface	Inface with direction change or spins	Taking grips out face	Outface	Outface with direction change, inclusion of spins/ tricks
Carving head up			Inface	Inface direction change or spins	Outface
Eagle head up/head down	Half	Full	Full with tricks spins Half reverse	Full reverse	Full reverse with tricks, spins
Eagle head up/head up		Half	Full	Full with, tricks, spins	
Synchronized moves	Loop	Loops	Loops with half twists	Loops full twist	Loops with multiple twists
Head up & head down	Double spock Compress Totem Double joker Double grip vice-versa Head-up Star	Sole-to-sole Vertical compressed rotations Double grips Head Up	Double joker reverse Double sole-to-sole Head-to-head Vertical compressed switch Totem rotation	Head-to-head rotation Sole-to-sole rotation	
Belly-down/back-down position	Cat Star Compressed	Brouette Cat barrel roll	Interlock (leg lock)		

According to this list of difficulty factors, the following are examples only of the grading:

Freestyle				
Very easy	Easy	Moderate	Difficult	Very difficult
F/B tuck loop F/B LO loop	F/B LO 0.5 twist	F/B LO 1 twist Side LO 0.5 twist Side LO	F/B LO 1.5 twist Side LO 1 twist Consecutive full twists	F/B LO 2 or more twists Side LO 1.5 or more twists Consecutive double twists
Straddle Standup	Straddle headstand	Cartwheel	Straddle headstand turn, Swan (headstand with legs straight and together, with a straight body)	Swan spin, head-down spin with legs at 90°
Flip through		Thomas Flair		
Symmetrical head-up poses (i.e. Standup, V-Seat, Straddle Seat, Sitfly) Head-down carve	Straddle headstand Daffy, Daffy switch, Daffy swivel, Daffy reverse Head-up carve	Compass switch, Compass swivel, Compass illusion, Compass inversion, Billman	Swan turn, Helix spin, Stag 1 twist, Helicopter, Eouzan	Blind carving with 360° inside the carve
Tee Tee reverse Tee switch Tee swivel Pinwheel	Back-down Tee, Propeller, Arabian	Stag kick turns, Stag spin	Robin Spin	
		Pike backstop	Cele (continuous back loop, tuck position + at least 1 twist in each loop)	Double Cele (continuous back loop, tuck position + double twist in each loop)

No stops are allowed between (part of) twists or these parts will be valued as single twisting moves. The "tricks" in the table are loops (layout, tucked or piked) or barrels.

Over-under moves:

Full Eagle: One Performer is in a head-up orientation and the other Performer is in a head-down orientation, facing each other. The head-up Performer moves over the other Performer while performing half a front loop, maintaining visual contact. The Performer passes through the head-down orientation. The rotation continues and the Performer moves from the head-down orientation under the other Performer while performing half a front loop, again maintaining visual contact. The other Performer moves under and over the first Performer in a front loop synchronous with the first Performer. The Performers end up in the same positions where they originally started. This whole rotation should be one continuous movement.

Half Eagle: A 50% section of the Full Eagle, starting and stopping point undefined.

Full Reverse Eagle: One Performer is in a head-up orientation and the other Performer is in a head-down orientation, facing each other. The head-up Performer moves feet first under the other Performer while performing half a back loop, maintaining visual contact. The Performer passes through the head-down orientation. The rotation continues and the Performer moves from the head-down orientation over the other Performer while performing half a back loop, again maintaining visual contact. The other Performer moves over and under the first Performer in a back loop synchronous with the first Performer. The Performers end up in the same positions where they originally started. This whole rotation should be one continuous movement. Basically, a reverse eagle is an eagle performed feet first by the Performers.

Half Reverse Eagle: A 50% section of the Full Reverse Eagle, starting and stopping point undefined.

Switch: A simultaneous change of the legs of the leg position (left to right, front to back, up to down) while maintaining the same body position and orientation.

Swivel: A transition between similar positions, but on opposite legs, while keeping the legs in approximately the same place. For example, a daffy swivel might start in a right daffy (right leg forward), and then you twist your upper body 180° over your legs, such that you end up in a left daffy, facing 180° away from where you started.

Illusion: An upward transition where only the orientation changes while maintaining the same body position, (for example from a tee to a compass while holding the legs in place and rotating the torso over the legs).

Inversion: A downward transition where only the orientation changes while maintaining the same body position, (for example from a compass to a tee while holding the legs in place and rotating the torso over the legs).

