



*Fédération  
Aéronautique  
Internationale*

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# Competition Rules

For  
**Artistic Events**

**2017 Edition**  
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- 1 FAI Statutes, ..... Chapter 1, ..... para 1.6
  - 2 FAI Sporting Code, Gen. Section, ..... Chapter 4, ..... para 4.1.2
  - 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 By-Laws, ..... Chapter 1, ..... para 1.2.1
  - 6 FAI Statutes, ..... Chapter 2, ..... para 2.4.2.2.5
  - 7 FAI By-Laws, ..... Chapter 1, ..... paras 1.2.2 to 1.2.5
  - 8 FAI Statutes, ..... Chapter 5, ..... paras 5.1.1, 5.2, 5.2.3 and 5.2.3.3
  - 9 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

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This document takes effect on the 1st of March 2017.

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## **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. Team: a Freestyle Skydiving Team is composed of a Performer and a Videographer. A Freeflying Team is composed of two (2) Performers and a Videographer.
- 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 and moves chosen by the Team.
- 2.5.2. Free routine: a routine composed of moves chosen entirely by the Team.
- 2.6. Working time: the period of time during which Teams may perform a routine during a jump. Working time starts the instant any Team Member separates from the aircraft, as determined by the Judges, and terminates 45 seconds later.

## **3. The events**

- 3.1. Discipline: the discipline comprises Freestyle Skydiving and Freeflying. There is no gender separation.
- 3.2. Objective of the events: the objective for the Team is to record a sequence of moves in freefall with the highest possible merit.
- 3.3. Exit altitude: 13,000 feet (3,960 m.) AGL.
- 3.4. World Champions:
- 3.4.1. After all completed round(s), World Champions in Freestyle Skydiving and in Freeflying, will be declared.
- 3.4.2. The Freestyle Skydiving World Champions and the Freeflying World Champions are the Teams with the highest total score for all completed rounds. If two (2) or more Teams have equal scores, then if time permits, the first three (3) places will be determined by a tie-break Free Round.
- 3.4.2.1. If a tie still exists, the following procedure will be applied until a clear placing is determined:
- i) the best score, then the second best score, then third best score, etc., of any completed free rounds.
  - ii) the best score, then the second best score, of any completed compulsory rounds.
- 3.4.3. Prizes and awards are awarded as follows:
- All Team Members in the events will be awarded medals if placed First, Second or Third.
  - The flags of the countries of the 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.

## **4. General rules**

- 4.1. Exit procedure: There are no limitations on the exit other than those imposed by the Chief Pilot for safety reasons.
- 4.2. Jump order: The jump order 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 Parachuting Championships or World Cup of Artistic Events. All teams not covered by this procedure will jump at the beginning of the round, with their jump order 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-jumping which shall be implemented after round five (5) and six (6). The relevant jump order will be maintained throughout the competition, except for any logistical changes deemed necessary by the Chief Judge and the Meet Director.
- 4.3.** Jump abortion: The Team may choose to abort a jump for any pertinent reason and may descend with the aircraft. If a jump-run is aborted and the Meet Director decides the reason is pertinent, the jump must then be made at the earliest opportunity. (Sporting Code, para 5.2.8.)
- 4.4.** Air-to-air video recording:
- 4.4.1.** The Videographer shall provide the video evidence required to judge each jump and to show the Team's performance to third parties. It is the responsibility of the Videographer to show start of working time.
- 4.4.2.** A Video Controller will be appointed by the organiser, and approved by the Chief Judge prior to the start of the official training jumps. Prior to the competition beginning, the Video Controller may inspect a Team's freefall video equipment to verify that it meets the performance requirements as determined by him/her. Inspections that do not interfere with a Team's performance may be made at any time during the competition, as determined by the Chief Judge. If any freefall video equipment does not meet the performance requirements as determined by the Video Controller, this equipment will be deemed to be unusable for the competition.
- 4.4.3.** For the purpose of these rules, "freefall video equipment" shall consist of the complete video system used to record the video evidence of the Team's freefall performance, including the camera(s), recording media, cables and battery. The freefall 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 Video Controller.
- 4.4.4.** The Videographer is responsible for assuring the compatibility of the freefall video equipment with the scoring system.
- 4.4.5.** The camera(s) must be fixed static to the helmet. No roll, pitch or yaw movements of the camera(s), mechanical and/or digital zoom adjustment, or any digital effects (excluding "steady shot" or other image stabilization feature) may be used during competition jumps. Failure to meet any of these requirements will lead to a score of zero (0) points.
- 4.4.6.** As soon as possible after each jump is completed, the Videographer must deliver the freefall video equipment (including the recording media used to record that jump) for dubbing at the designated dubbing station. The video evidence must remain available for viewing or dubbing until all scores are posted as final.
- 4.4.7.** Video Review Panel (VRP). A VRP will be established prior to the start of the official Training Jumps, consisting of the Chief Judge, the President of the Jury, and the FAI Controller. The VRP may enlist the help of the Video Controller. Decisions rendered by the VRP shall be final and shall not be subject to protest or review by the Jury.
- 4.4.8.** The Videographer must record, just before exit, the means inside the airplane with the relevant round number and date. The recording should continue with the jump without a stop in recording. Failure to meet this requirement will lead to a score of zero (0) points.
- 4.4.9.** The Organizer must provide the Teams with a way of identification of the Team, showing the team number to be recorded by the Videographer just before exit. The recording should continue with the jump without a stop in recording.
- 4.5.** Rejumps:
- 4.5.1.** In a situation where the video evidence is considered insufficient for judging purposes by a majority of the Judging Panel, the freefall video equipment will be handed directly to the VRP for assessing the conditions and circumstances of that occurrence. In this case, a rejump situation will be handled as follows;
- 4.5.1.1.** In the case the VRP determines that there has been an intentional abuse of the rules by the Team, no rejump will be granted and the Team's score for that jump will be zero (0).
- 4.5.1.2.** In the case the VRP determines that the video's evidence insufficiency is due to weather conditions or any other cause not controllable by the Team, a rejump will be given.
- 4.5.1.3.** In the case the VRP determines that the video's evidence insufficiency is due to a factor that could be controlled by the Team, no rejump will be granted and the Team will receive a score based on the video evidence available.
- 4.5.2.** Contact or other means of interference between (a) Performer(s) and/or the Videographer in a Team shall not be grounds for a rejump.
- 4.5.3.** Problems with a competitor's equipment (excluding freefall video equipment) shall not be grounds for a rejump.





Execution:

- *Precision, Control:* Ability of the Team to demonstrate body control skill (including pointed toes for Freestyle Skydiving), and appropriate control of proximity of all Team members, including the Videographer.

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.
- *Camera Work:* Good use of video angle(s), creative interactivity and/or lighting to enhance vision. Clean image and clear focus shown. Steadiness and accuracy of video framing. No parts of the Videographer's camera helmet/equipment/body parts unintentionally showing in the frame.

- 6.3.** Scoring Compulsory Routines: Judges give a score for the Team (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 relative to the Max Value of the Team's selected Compulsory Sequences using the following guidelines:

100% of Max Value	Move is performed and filmed flawlessly with no noticeable mistakes.
80% of Max Value	Move is performed or filmed with some small mistakes.
50% of Max Value	Move is performed and filmed with several medium mistakes.
30% of Max Value	Move is performed and filmed with one or several major mistakes.
0 points	Move not performed or identifiable or unjudgeable camera image.

See the Addenda A for Guidelines on scoring for common mistakes on some Compulsory Sequences.

## Small mistake examples

- Move: finish slightly off heading, slight wobble, etc.
- Camera: momentary loss of framing or focus, occasional minor distance errors, etc.

## Medium mistake examples

- Move: significantly off heading, wobble, not enough rotation, etc.
- Move: required elements performed incorrect, turning the wrong direction, etc.
- Move (Freestyle Skydiving): toes not pointed, knees bent.
- Camera: momentary loss of image, framing, focus, or distance errors for about 20 % or more of the Compulsory Sequence, etc.

## Major mistake examples

- Move: completely missing required elements or performed so poorly that move is barely recognizable.
- Camera: unjudgeable picture 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. If the Judges cannot identify any Presentation element the score for presentation will be 0,0 points.

- 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 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 Team completes or abandons the performance requirements of that sequence.

- 6.4.** Score calculation: The score for each round is calculated as follows:

- Compulsory Rounds: the highest and lowest Judges' scores of each Compulsory Sequence and Presentation will be discarded, and then the remaining three (3) scores will be averaged with no rounding applied. The average scores will be added, and the result will be divided by five (5), then rounded to the first decimal place.
  - Free Rounds: the highest and lowest Judges' scores for Execution and Presentation criteria will be discarded, the remaining three (3) scores of both Execution and Presentation will be averaged separately with no rounding applied. To determine the Technical score, the scores for Difficulty and Execution will be added, and the result will be divided by two (2), with no rounding applied. The Technical and Presentation scores will be added, and the result will be divided by two (2), then rounded to the first decimal place.
- 6.4.1.** 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.
- 6.4.2.** Total scores for the events are calculated by adding the Team's official scores of all completed rounds.
- 6.4.3.** All scores for each Judge will be published.
- 6.5.** Judging rules:
- 6.5.1.** The jumps shall be judged using the video evidence as provided by the Videographer.
- 6.5.2.** A panel consisting of five (5) Judges must evaluate each Team's performance. Where possible a complete round shall be judged by the same panel.
- 6.5.2.1.** Compulsory Routines: all five (5) Judges will evaluate the routines.
- 6.5.2.2.** Free Routines: all five (5) Judges will evaluate the Technical and the Presentation criteria.
- 6.5.3.** The Judges will watch each jump once with an optional second viewing.
- 6.5.4.** All viewings must be at normal speed. At the discretion of the Event Judge, a third view of a Compulsory Round jump, or part of it, is allowed, in normal or reduced speed (70%).
- 6.5.5.** The Judges will use the electronic scoring system to record the 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.
- 6.5.6.** The chronometer will be operated by the Judges or by (a) person(s) appointed by the Chief Judge, and will be started when a Team Member leaves the aircraft. If Judges cannot determine the start of the working time, the following procedure will be followed. Working time will start as the Videographer separates from the aircraft and a penalty equal to 20% (rounded down) of the score for that jump will be deducted from the score for that jump.
- 6.6.** Training jumps:
- 6.6.1.** Each Team in each event will be given the option of two (2) official training jumps prior to the competition. The aircraft type and configuration plus the judging and scoring systems to be used in the competition will be used for the official training jumps.
- 6.6.2.** Before the start of the training jumps, the Team Captain has the option to explain the delivered Free Routine description sheet(s). If, for weather reasons, no training jumps are possible, Teams can deliver a maximum of two (2) previous training jumps for scoring and move explanation. For (previous and official) training jumps, 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) Teams for each event for a WPC or Continental Championship.
  - The number of 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 Skydiving Compulsory Sequences
- Addendum A2: Freeflying Compulsory Sequences
- Addendum B: Basic body positions, orientations and rotations
- Addendum C: Difficulty

- Addendum D: Routine description

## ADDENDUM – A1

### FREESTYLE SKYDIVING COMPULSORY SEQUENCES PERFORMANCE REQUIREMENTS & JUDGEMENT CRITERIA

- The order in which these Compulsory Sequences can be performed is determined by the Team.
- The Team must submit the order of the Compulsory Sequences and their chosen Max Values before the start of the competition to the Chief Judge. (see para 5.2.3. and addendum D)
- Each Team must ensure that clothing and/or the camera 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 and knees must be straight, except as noted in descriptions. Otherwise, the maximum possible score for the Compulsory Sequence is 90% of the Max Value.
- The judging of each sequence begins when the Judges see the 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 Team completes or abandons the performance requirements of that sequence.
- The Videographer must maintain proximity to the Performer throughout each Compulsory Sequence, except where the Sequence description specifically prescribes otherwise.
- The video image must be upright with the sky in the upper portion of the frame throughout each Compulsory Sequence, except where the Sequence description specifically prescribes otherwise.

#### FIRST COMPULSORY ROUND (ROUND 2)

##### **FR-1 Eagle Sequence**

###### Half Eagle

- At the beginning, the Performer is in a head-down orientation.
- Legs must be in line with the torso (when viewed from the side).
- The Performer goes below the Videographer as the Videographer goes over the top, moving around an imaginary centre between them so that both end up in opposite positions and orientations than they originally began.
- The Eagle should be performed as one continuous movement.
- The Eagle must remain on the same heading.

###### Videographer requirements

- Videographer must show Performer from his/her front during the whole sequence.

**Max Value 3 pts: Half Eagle** is performed as described above.

###### **Max Value 7.5 pts: Full Eagle**

- Half Eagle is performed as described above, then:
- The movement continues until the Performer and the Videographer end up in their relative beginning positions.

###### **Max Value 10 pts: Full Eagle with Trick**

- Half Eagle is performed as described above, then:
- The movement continues until the Performer and the Videographer end up in their relative beginning positions.
- The Performer must perform a tight tuck front loop (trick) in the middle of the second part of the Eagle (when he/she is above the Videographer).
- Videographer must show Performer from his/her front during the whole sequence, with the exception of the full tight tuck front loop.

###### Judging guidelines

- When no front loop, when required, is performed, the maximum score will be 60% of the Max Value.

##### **FR-2 Carving Sequence**

###### Carve

- The Performer must be in a head-down orientation, facing the Videographer.
- The Performer and Videographer must orbit 360° around an imaginary centre.

###### Videographer requirements

- Videographer must show the front of the Performer throughout the sequence.
- Videographer must show the image as if the Performer remains static with only the background moving.

- Videographer must be on the same level as the Performer throughout the sequence and show a portion of the ground within the video frame.
- Videographer must maintain the same distance from the Performer throughout the sequence.

**Max Value 3 pts: Carve** is performed as described above.

**Max Value 7.5 pts: Layout Carve with 360° Carousel**

- Carve is performed as described above.
- The Performer must maintain the layout position throughout the sequence.
- In the middle of the 360° carve, the Performer must perform a 360° pirouette.
- Videographer must show the front of the Performer throughout the sequence, except for the Carousel.

**Max Value 10 pts: Switching Layout Carve**

- Carve is performed as described above, but in layout position and switching to outfacing.
- The Performer must maintain the layout position throughout the sequence.
- In the middle of the 360° carve, the Performer must pirouette 180° to outfacing.
- If the Performer is carving toward their right shoulder, a left pirouette must be performed or vice versa.
- Without stopping, the Performer must continue 180° of out-face carving
- Videographer must show the front of the Performer for the first 180° of carving and the back of the Performer for the second 180° of carving.

### **FR-3 Horizontal Twisting Sequence**

Videographer requirements

- The image must be upright with the sky in the upper portion of the frame.
- Videographer must stay on the same level, remain in place and show the Performer from the front.

**Max Value 5 pts: Three (3) Flip Throughs**

- At the beginning, the Performer is in belly-down orientation.
- For a complete Flip Through, torso must roll through 360° while simultaneously turning through 360° horizontally.
- The torso must be belly-down at the start of the rotation, on its side when 90° of the turn is complete, on its back when 180° of the turn is complete, and on the other side when 270° of the turn is complete.
- Legs must remain together and straight.
- There must be at least a 160° angle between the front of the torso and the thighs throughout the sequence.
- The face must remain facing the Videographer (Performer looking into the camera lens) and maintain the same direction throughout all the rotations.
- Three (3) complete rotations, without stopping, must be performed.

**Max Value 10 pts: Thomas Flair into Head-down Split**

- At the beginning, the Performer is in belly-down orientation.
- Three (3) Thomas Flair rotations must be performed.
- The toes must be pointed throughout the sequence.

Thomas Flair

- For one complete Thomas Flair, the torso must roll through 360° while simultaneously turning through 360° horizontally.
- The torso must be belly-down at the start of the rotation, on its side when 90° of the turn is complete, on its back when 180° of the turn is complete, and on the other side when 270° of the turn is complete.
- Legs must remain straddled apart, with at least 90° between them, with the knees straight.
- The face must remain facing the Videographer and maintain the same direction throughout all the rotation.

Half Thomas Flair to Head-down Split

- Without stopping, an additional half Thomas Flair is performed into a head-down split.

### **FR-4 Looping Sequence**

Back Layout Loops

- Beginning is from a layout position in head-up orientation.
- Three (3) complete 360° layout back loop rotations, without stopping, must be performed.
- 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.
- Videographer requirements
- Videographer must be on the same level with the Performer and show the Performer from his/her side at start of the sequence, must remain in place.
- Max Value 3 pts: Layout Back Loops** are performed as described above.
- Max Value 7.5 pts: Layout Loops with Half Twist**
- First back loop is performed as described above.
  - A half twist must be performed within and evenly executed throughout the second loop.
  - After a momentary stop in the head-up orientation, a full front loop must be performed.
- Max Value 10 pts: Layout Back Loops with Full Twist**
- Layout Back Loops are performed as described above but:
  - A full twist must be performed within and evenly executed throughout the second loop.
  - Looping motion must be smooth.
  - The sequence must end in a layout position in head-up orientation, on the same heading as the beginning.

## SECOND COMPULSORY ROUND (ROUND 5)

### FR-5 Reverse Eagle Sequence

#### Half Reverse Eagle

- At the beginning, the Performer is in a head-up orientation.
- The Performer goes below the Videographer as the Videographer goes over the top, moving around an imaginary centre between them so that both end up in opposite positions and orientations than they originally began.
- The Reverse Eagle should be performed as one continuous movement.
- The Reverse Eagle must remain on the same heading.

#### Videographer requirements

- Videographer must show Performer from his/her front during the whole sequence.

**Max Value 3 pts: Half Reverse Eagle** is performed as described above.

#### Max Value 7.5 pts: Full Reverse Eagle

- Half Reverse Eagle is performed as described above, then:
- The movement continues until the Performer and the Videographer end up in their relative beginning positions.

#### Max Value 10 pts: Full Reverse Eagle in Layout Position

- Half Reverse Eagle is performed as described above, then:
- The movement continues until the Performer and the Videographer end up in their relative beginning positions.
- Legs must be in line with the torso (when viewed from the side) throughout the sequence.

### FR-6 Angle Flying

THIS COMPULSORY SEQUENCE MUST **NOT** BE THE FIRST ONE PERFORMED!

- Performer is in approximately 45° diagonal orientation with the head low.
- Performer must be in a layout position, without any bend at the waist, throughout the sequence.
- Videographer must demonstrating an on-level position with respect to the approximately 45° diagonal orientation throughout the sequence.

#### Max Value 3 pts: Angle Flying Pose

- Performer is facing upward.
- This angle flying must be maintained for a minimum of 3 seconds.
- Videographer must show Performer from his/her side throughout the sequence.
- Videographer must show the horizon at an approximately 45° diagonal angle.

#### Max Value 7.5 pts: Angle Flying with 360° Barrel Roll

- At the beginning and the end, the Performer must be facing upward.
- The Performer will make a 360° rotation on the Body Head-Tail axis while maintaining an approximately 45° diagonal orientation.
- The video image must be upright with the sky in the upper portion of the frame (horizon horizontal in the frame) throughout the sequence.
- Videographer must show the horizon at an approximately 45° diagonal angle.
- At the beginning and the end, the Videographer must show Performer from his/her side.

#### Max Value 10 pts: Angle Flying with 180° barrel roll with Videographer Carving

- At the beginning, the Performer must be facing upward.

- The Performer will make a 180° rotation on the Body Head-Tail axis while maintaining an approximately 45° diagonal orientation.
- The Performer must end facing downward.
- At the beginning and the end, the Videographer must show the horizon at an approximately 45° diagonal angle.
- Videographer must carve over Performer during the 180° rotation.
- Videographer must show an image as if the Performer remains static with only the background moving.
- Videographer must maintain a direct side view of the Performer.

Judging guidelines

- When this Compulsory Sequence is performed first in the compulsory routine, the maximum score will be 30% of the Max Value.

**FR-7 Cartwheel Sequence**

Cartwheel

- Beginning is a straddle position in head-up orientation.
- Torso must be straight, without any bend at the waist throughout the sequence.
- Head, shoulders and torso must be in line, facing the same direction throughout the Cartwheel (without any twist in the torso).
- The sequence must end in a straddle position in head-up orientation.
- Videographer must show the front of the Performer and be on the same level throughout the sequence.

**Max Value 3 pts: Single Cartwheel**

- One complete 360° cartwheel rotation in the straddle position must be performed.

**Max Value 7.5 pts: Two Cartwheels**

- Two complete 360° cartwheel rotations (in the same direction, without stopping) in the straddle position must be performed.

**Max Value 10 pts: Two Cartwheels with Synchronised Roll**

- Two complete 360° cartwheel rotations (in the same direction, without stopping) in the straddle position must be performed.
- Videographer must make a synchronised roll with the Performer during the second Cartwheel, showing an image as if the Performer remains static with only the background moving.

**FR-8. Head-Up Straddle Spins**

- Performer is in straddle position, without any bend at the waist, in head-up orientation.
- Spins can be in either direction.
- At the beginning and the end, the Videographer must show the front of the Performer.

**Max Value 3 pts: Head-Up Straddle Spins**

- The straddle must spin rapidly, with three (3) pirouette rotations performed within five (5) seconds from the start of the first rotation.
- Videographer must be on the same level throughout the sequence.

**Max Value 5 pts: Head-Up Straddle Spins with Synchronised Carve**

- The straddle must spin rapidly, with three and a half (3,5) pirouette rotations performed within five (5) seconds from the start of the first rotation.
- Synchronous with the Performers' rotations, the Videographer must carve 180° opposite the Performer's rotation.
- Videographer must be on the same level throughout the sequence.

**Max Value 10 pts: Head-Up Straddle Spins with Half Eagle**

- The straddle must spin rapidly, with three and a half (3,5) pirouette rotations performed within five (5) seconds from the start of the first rotation.
- Synchronous with the Performers' rotations, the Videographer must perform a half Eagle passing under the Performer with half (180°) camera roll at the lowest point, the roll in the opposite direction as the Performer's rotation.
- At the end, the Videographer must be on the same level.

Judging guidelines

- When the Videographer passing under the Performer, during the Half Eagle, makes the camera roll to the wrong direction, the maximum score will be 50% of the Max Value.

## ADDENDUM – A2

### FREEFLYING COMPULSORY SEQUENCES PERFORMANCE REQUIREMENTS & JUDGEMENT CRITERIA

- The order in which these Compulsory Sequences can be performed is determined by the Team.
- The Team must submit the order of the Compulsory Sequences and their chosen Max Values before the start of the competition to the Chief Judge. (see para 5.2.3. and addendum D)
- The face to face requirement means that the Performers must be with their heads at the same level and looking at each other.
- Being on the same level means that the centres of the bodies are at the same level.
- The judging of each sequence begins when the Judges see the 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 Team completes or abandons the performance requirements of that sequence.
- The Videographer must maintain a consistent distance from the Performers' centre point throughout each Compulsory Sequence, except where the Sequence description specifically prescribes otherwise.
- The video image must be upright with the sky in the upper portion of the frame throughout each Compulsory Sequence, except where the Sequence description specifically prescribes otherwise.

## FIRST COMPULSORY ROUND (ROUND 2)

### **FF-1. Double Joker Reverse**

#### Double Joker

- One Performer is in a head-up orientation, the other in a head-down orientation, face to face.
- A right hand-to-right hand (or left hand-to-left hand) grip is taken and must be maintained during the entire sequence.
- The formation is rotated 180° over the top, i.e. the head-up Performer moves directly over the other Performer into a head-down orientation. At the same time, the head-down Performer moves directly underneath into a head-up orientation. (No sideways rotation is allowed.) This 180° rotation must be continuous.
- The Performers end in the opposite orientations and on the opposite heading.
- After this 180° rotation (the stop in between is only momentary), the formation is rotated in the reverse direction, (180° over the top) until the Performers end on the original heading in their original orientations.

#### Videographer requirements

- The Videographer must show the Performers from the side.
- The Videographer must be on the same level with the Performers' centre point.

**Max Value 5 pts: Double Joker Reverse** is performed as described above.

#### **Max Value 7.5 pts: Double Joker Reverse with Synchronised Roll**

- Double Joker Reverse is performed as described plus the following:
- The Videographer must make a synchronised roll with the Performers, showing an image as if the Performers remain static with only the background moving.

#### **Max Value 10 pts: Double Joker Reverse in Layout Position with Synchronised Roll**

- Double Joker Reverse is performed as described plus the following:
- The Performers must maintain a layout position, without any bend at the waist, with the knees straight, throughout the entire sequence.
- The Videographer must make a synchronised roll with the Performers, showing an image as if the Performers remain static with only the background moving.

#### Judging guidelines

- Wrong grip location (not right-to-right hand or left-to-left hand), the maximum score will be 70% of the Max Value.
- Wrong grip is not hand-to-hand, the maximum score will be 70% of the Max Value.
- When the Videographer makes the roll in the wrong direction, the maximum score will be 50% of the Max Value.



**FF-2. Cat Barrel Roll**

## Cat position

- Both Performers are in belly-down orientation.
- One Performer has grips on the lower legs of the other Performer, the right hand on the right lower leg and the left hand on the left lower leg.
- The upper legs should be in line with the torso.
- Both Performers simultaneously perform one (1) full barrel roll along the same axis, maintaining the same heading.
- The barrel rolling can be in either direction.

## Videographer requirements

- At the beginning, the Videographer must be in line with the body Left-Right axes of the Performers showing a side of the Performers.
- Videographer must be on the same level as the Performers' centre point and remain in place throughout the sequence.

**Max Value 5 pts: Cat Barrel Roll** is performed as described above.

**Max Value 7.5 pts: Double Cat Barrel Roll**

- Cat Barrel Roll is performed as described but with two (2) rolls
- Both Performers simultaneously perform two (2) consecutive full barrel rolls, without stopping, along the same axis, maintaining the same heading.

**Max Value 10 pts: Double Cat Barrel Roll in Layout Position**

- Cat Barrel Roll is performed as described but with two (2) rolls
- Both Performers simultaneously perform two (2) consecutive full barrel rolls, without stopping, along the same axis, maintaining the same heading.
- The Performers must maintain a layout position, without any bend at the waist, with the knees straight, throughout the entire sequence.

## Judging guidelines

- One or both grips in wrong location (i.e., not on lower leg), the maximum score will be 70% of the Max Value.
- If the two (2) barrel rolls are not consecutive and smooth, the maximum score will be 80% of the Max Value.

**FF-3. Turning Totem**

## Totem

- Both Performers are in head-up orientation, on the same heading.
- One Performer demonstrates a feet-to-shoulder dock, a separate foot on each side of the head of the lower Performer, without any additional grips.
- The left foot of the top Performer must be on the left shoulder of the lower Performer and the right foot of the top Performer must be on the right shoulder of the lower Performer.
- Both Performers simultaneously pirouette 360°.
- The pirouette can be in either direction.
- Both Performers must stay in the same axis and in layout position during the pirouette, without wobbling.

## Videographer requirements

- The Videographer must show the front of both Performers on level with the head of the lower Performer and remain in place throughout the sequence.

**Max Value 5 pts: Turning Totem** is performed as described above.

**Max Value 7.5 pts: Layout Top Turning Totem**

- Turning Totem is performed as described plus the following:
- The Performer on the top must be in a layout position, without any bend at the waist, with the knees straight throughout the sequence.

**Max Value 10 pts: Layout Turning Totem**

- Turning Totem is performed as described plus the following:
- Both Performers must be in a layout position, without any bend at the waist, with the knees straight throughout the sequence.

## Judging guidelines

- Wrong body position (when not in layout position when it is required), the maximum score will be 50% of the Max Value.
- For assisting grip(s) (i.e. hands on feet), the maximum score will be 70% of the Max Value.

**FF-4. Head-Down Carve**

## Head-Down Carve

- Both Performers are in head-down orientation, facing one another on the same level.
- Both Performers start carving around an imaginary centre between them.
- A minimum of 360° of carving must be performed by the Performers.
- The carving orbits must be circular (not elliptical).
- The Performers must maintain the same distance from each other and remain facing one another during the sequence.

## Videographer requirements

- Videographer must be carving around in the opposite direction of the Performers, maintaining the same distance and the same level.
- A minimum of 360° of carving must be performed by the Videographer, at the same speed as the Performers.
- Videographer must stay on the same level as the Performers.

**Max Value 5 pts: Head-Down Carve** is performed as described above.

**Max Value 7.5 pts: Head-Down Carve with Carousel**

- Head-Down Carve is performed as described above and then a Carousel.
- Upon completing 360° of carving, the Performers, each perform an individual 360° Pirouette while arched at the hips.
- The Videographer must be stationary, showing the sides of the Performers at the beginning and end of the Carousel.

**Max Value 10 pts: Out-face Head-Down Carve**

- Head-Down Carve is performed as described above, but outfacing (without a Carousel).
- Both Performers are in head-down orientation, outfacing with their backs to one another.
- A minimum of 720° of carving must be performed by the Performers.
- A minimum of 720° of carving must be performed by the Videographer, at the same speed as the Performers.

**SECOND COMPULSORY ROUND (ROUND 5)****FF-5. Full Eagle**

## Eagle

- Both Performers are in head-down orientation, facing the Videographer.
- The Performers go below the Videographer as the Videographer goes over the top, moving around an imaginary centre between them so that they end up in opposite positions and orientations than they originally began. The movement continues until the Performers and the Videographer end up in their relative beginning positions.
- The Full Eagle should be performed as one continuous movement.
- The Full Eagle must remain on the same heading.

## Videographer requirements

- Videographer must show Performers from their front during the whole sequence.

**Max Value 3 pts: Full Eagle** is performed as described above.

**Max Value 5 pts: Linked Full Eagle**

- Full Eagle is performed as described above, but linked.
- Both Performers maintain a hand-to-hand grip (left hand of one Performer with the right hand of the other Performer or vice versa) throughout the entire sequence.

**Max Value 7.5 pts: Linked Full Eagle with 360° Pirouette**

- Linked Full Eagle is performed as described above.
- Both Performers maintain a hand-to-hand grip (left hand of one Performer with the right hand of the other Performer or vice versa) throughout the entire sequence, except for the 360° Pirouettes.
- The Performers must simultaneously perform individual 360° Pirouettes in the middle of the second part of the Eagle (when they are above the Videographer).
- Videographer must show Performers from their front during the whole sequence, with the exception of the Pirouettes.

**Max Value 10 pts: Linked Full Eagle with Front Loop**

- Full Eagle is performed as described above, but linked and with a Front Loop.

- Both Performers maintain a hand-to-hand grip (left hand of one Performer with the right hand of the other Performer or vice versa) throughout the entire sequence.
- The Performers must perform a tuck front loop (trick) in the middle of the second part of the Eagle (when they are above the Videographer).
- Videographer must show Performers from their front during the whole sequence, with the exception of the full tuck front loop.

#### Judging guidelines

- When no trick (Pirouette or Front Loop) is performed, the maximum score will be 60% of the Max Value.
- When the grip is not hand-to-hand, when required, the maximum score will be 75% of the Max Value.

### **FF-6. Angle Flying**

THIS COMPULSORY SEQUENCE MUST **NOT** BE THE FIRST ONE PERFORMED!

- Both Performers are in an approximately 45° diagonal orientation with their heads low.

#### **Max Value 3 pts: Angle Flying Pose**

- One Performer is facing upward, and the other performer is facing downward, face-to-face.
- This angle flying must be maintained for a minimum of 3 seconds.
- The Videographer must show the Performers from the side.
- The Videographer must show the horizon at an approximately 45° diagonal angle.

#### **Max Value 5 pts: Angle Flying with Synchronised Back Loops**

- At the beginning and the end, both Performers are side-by-side, facing upward.
- Both Performers must simultaneously perform a full back loop.
- The Videographer must show the front of the Performers from above.

#### **Max Value 7.5 pts: Angle Flying with Synchronised Barrel Rolls**

- At the beginning and the end, both Performers are side-by-side, facing downward.
- At the beginning and the end, the Videographer must show the Performers from the side.
- Both Performers must simultaneously perform a 360° barrel roll.
- Videographer must simultaneously carve 180° going over the Performers and end on the opposite side of the Performers' centre point.

#### **Max Value 10 pts: Angle Carving**

- At the beginning, one performer is facing upward, and the other performer is facing downward, face-to-face.
- At the beginning and the end, the Performer facing upward must be in a layout position, without any bend at the waist.
- At the beginning and the end, the Videographer must show the Performers from the side.
- At the beginning and the end, the Videographer must show the horizon at an approximately 45° diagonal angle.
- The Performers make a 180° in-face carve on the same diagonal line of flight.
- The carving must be round (not elliptical).
- During the carve, Performers must stay on level (based on the line perpendicular to the diagonal).
- Videographer must simultaneously carve 180° going under the Performers in the opposite direction and end on the opposite side of the Performers' centre point.
- Videographer must maintain the same distance and the same level with the Performers' centre point.

#### Judging guidelines

- When this Compulsory Sequence is performed first in the compulsory routine, the maximum score will be 30% of the Max Value.

### **FF-7. Synchronised Back Layouts**

#### Back Layouts

- Both Performers begin in layout position in head-up orientation, side by side, on the same level and heading.
- Both Performers simultaneously perform a full layout back loop.
- Looping motion must be smooth, around the same horizontal axis, without wobbling.
- Both Performers simultaneously end in head-up orientation, side by side, both facing the Videographer.

#### Videographer requirements

- At the beginning, the Videographer must be in front of both Performers.
- Videographer must stay on the same level as the Performers' centre point and remain in place throughout the sequence.

**Max Value 3 pts: Back Layouts** performed as described above.

**Max Value 7.5 pts: Two Back Layouts**

- Without stopping, both performers simultaneously perform a second full layout back loop.

**Max Value 10 pts: Two Back Layouts with Half Twist**

- Back Layouts performed as described above.
- Without stopping, both Performers simultaneously perform a second full layout back loop with a half twist.
- The half twist must be performed within and evenly executed throughout the loop, and performed in the same direction.
- Both Performers simultaneously end in head-up orientation, side by side, both facing away from the Videographer.

Judging guidelines

- When each Performer is twisting in a different direction, the maximum score will be 50% of the Max Value.
- When no twist (when it is required) is performed, the maximum score will be 30% of the Max Value.

#### **FF-8. Head-Up Grip Sequence**

- Both Performers are in head-up orientation.
- After making the required grip(s), both Performers simultaneously release their grip(s).
- The distance between the Performers must remain the same during the sequence.

**Max Value 3 pts: Head-Up Side-by-Side Grip 360°**

- At the beginning, both Performers are side-by-side. (Sit position allowed.)
- A hand-to-hand grip is taken (left-to-right hand and right-to-left hand).
- After grip release, both performers simultaneously perform a 360° pirouette while remaining on the same level and retake the grip.
- Videographer must show the front of the Performers at the beginning, on the same level, stay on level and remain in place.

**Max Value 5 pts: Head-Up Face-to-Face Grips 360°**

- At the beginning, both Performers are face-to-face. (Sit position allowed.)
- A double hand-to-hand grip is taken (left-to-right hand and right-to-left hand).
- After grip release, both performers simultaneously perform a 360° pirouette while remaining on the same level.
- Both Performers retake both grips at the same time.
- Videographer must show the side of the Performers at the beginning, on the same level, stay on level and remain in place.

**Max Value 7.5 pts: Stand-Up Side-by-Side Grip 360° - Layout Position**

- Both Performers must maintain the layout position throughout the entire sequence.

**Max Value 10 pts: Stand-Up Face-to-Face Grips 360° - Layout Position**

- Both Performers must maintain the layout position throughout the entire sequence.

Judging guidelines

- Wrong body position (when not in layout position when it is required), the maximum score will be 50% of the Max Value.
- When double hand-to-hand grips are not taken simultaneously, the maximum score will be 80% of the Max Value.
- When only one (1) grip is taken when two (2) should be taken, the maximum score is 70% of the Max Value.
- When any grip(s) is(are) not hand-to-hand, the maximum score is 75% of the Max Value.

## **ADDENDUM B**

### **BASIC BODY POSITIONS, ORIENTATIONS AND ROTATIONS**

#### **A. DEFINITION BODY PARTS**

A Body consists of the entire Performer and his/her equipment.

The parachutist'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, and parachute, but excluding arms, legs, head and neck.
- arm: the whole arm from the parachute harness, 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 parachute harness, including the upper leg, knee, lower leg and foot.
- upper leg (thigh): the part of the leg between the leg strap of the parachute harness and the knee.
- knee: the part of the leg between the upper leg and the lower leg.
- 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 can be in an arch, layout or pike position with the limbs in any of various positions. These define the amount of bend at the waist/hips and the angle of the upper legs (thighs) relative to the torso. Additional body positions define positions of the legs. The arms are left free to control the position. For description purposes on heading, torso means the front of the torso.

##### **B-1. Arch Position**

- The torso is arched at the waist/hips, such that the angle between the front of the torso and the thighs is greater than 180° (if viewed from the side).
- If both legs are together with the knees straight, the angle between the front of the torso and both thighs must be greater than 180° (if viewed from the side).
- If the legs are in a creative position, at least one thigh must show an angle greater than 180° from the front of the torso (if viewed from the side).
- The head may be arched back.

##### **B-2. Layout Position**

- The torso is straight, with no bend at the waist/hips (if viewed from the side).
- If both legs are together with the knees straight, both legs must in line with the torso (if viewed from the side).
- If the legs are in a creative position, at least one thigh must be in line with the torso (if viewed from the side).

##### **B-3. Pike Position**

- The torso is bent forward at the waist/hips, such that the angle between the front of the torso and the thighs is less than 180° (if viewed from the side).
- If the legs are both together and straight at the knees or in a creative position, the angle between the front of the torso and the thighs must be less than 180° (if viewed from the side).
- For a Loose Pike, the angle between the front of the torso and the thighs is between 90° and 180° (if viewed from the side).
- For a Tight Pike, the angle between the front of the torso and the thighs is less than 90° (if viewed from the side).

**B-4. Tight Tuck Position**

- The torso is bent forward at the waist/hips such that the angle between the front of the torso and the thighs is less than 90° (if viewed from the side).
- The knees are bent, 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 knees may be together or spread apart.
- For a Loose Tuck, the two described angles are between 90° and 180° (if viewed from the side).

**B-5. Sit Position**

- The torso is vertical in a head-up orientation.
- The angle between the front of the torso and thighs is between 90° and 145° (if viewed from the side).
- The knees are bent such that the angle between the upper and lower legs is between 90° and 145°.
- The lower legs are parallel to the torso.
- The knees may be together or spread apart.

**B-6. Stag Position**

- One leg is completely straight at the knee.
- The other leg is flexed forward at the hip and the knee is flexed to place the toe at the knee of the straight leg. The knee is flexed at least 90°.
- An Open Stag is when the lower leg of the bent leg is parallel with the upper leg of the straight leg. (The toe is not placed at the knee of the straight leg.)
- The knee of the leg placed in the Stag points forward.
- The body can be in an arched, layout or piked position while in a Stag Position.

**B-7. Straddle Position**

- The legs are split apart, from side to side, with at least a 90° angle between them (if viewed from the front).
- Both knees are straight.
- The body can be arched (Arched Straddle Position), in a layout (Layout Straddle Position) or piked (Piked Straddle Position) with the legs in a Straddle Position.

**B-8. Split Position**

- The legs are split apart from front and back, with at least a 90° angle between them (if viewed from the side).
- Both knees are straight.

**B-9. Tee Position**

- The torso may be straight, with no bend at the waist, or arched.
- One leg is extended in front of the torso, with an angle of 90° between the front of the torso and the thigh (if viewed from the side).
- The other thigh is in line with the torso or has an angle greater than 180° from the torso (if viewed from the side).
- Both knees are straight.

**B-10. Compass Position**

- The torso is in the head-up orientation.
- One leg is in line with the torso.
- For a parallel Compass, the other leg is raised forward, such that the angle between the thigh and torso is 90° or less.
- For a turned-out Compass, the other leg is split to the side with the knee pointed upward, such that the angle between the thigh and torso is 90° or less.
- Both knees are straight.
- The body can be in an arched or layout position with the legs in a Compass.

**C. ORIENTATIONS**

There are six (6) different basic orientations (not including the diagonal orientations) which a body can have to the relative wind (or ground when at terminal velocity without horizontal movement). These define which way the torso is oriented.

**C-1. Belly-down Orientation**

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

**C-2. Back-down Orientation**

The torso is horizontal, on its back, facing upwards away from the relative wind.

**C-3. Sideways Orientation**

The torso is horizontal, on its side, with either side facing towards the relative wind. At terminal velocity without horizontal motion, the chest is facing the horizon.

**C-4. Head-up Orientation**

The torso is vertical with the head up, directly away from the relative wind.

**C-5. Head-Down Orientation**

The torso is vertical with the head pointing directly into the relative wind.

**C-6. Diagonal Orientation**

The diagonal orientation is with respect to the horizon line and ground at terminal velocity. The torso is on a diagonal with respect to the horizon line and ground, at an angle between the six (6) basic orientations. The torso may be head high or head low. The front of the torso may be pointed towards the ground, towards the sky or any direction about the Body Head-Tail axis.

**D. ROTATION AXES**

Most moves involve some sort of rotational motion of the body. A total of five (5) axes are used to describe the six (6) possible basic rotational motions.

**D-1. Wind Axes**

There are two (2) inertial axes which stay fixed with respect to the relative wind (or ground when at terminal velocity with no horizontal motion).

**Vertical Axis**

The vertical axis remains parallel to the relative wind, (pointing from the sky to the ground when at terminal velocity with no horizontal motion).

**Horizontal Axis**

The horizontal axis is any axis perpendicular (90°) to the relative wind, (pointing to the horizon when at terminal velocity with no horizontal motion). 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-Tail Axis**

The body head-tail axis is oriented lengthwise, pointing from head to tail-bone, normally through the Performer's torso. (In a layout position, the head and feet are in the same line. When the body is bent at the hips, this axis is aligned with the spine does not include the legs.)

**Body Front-Back Axis**

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

**Body Left-Right Axis**

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

**E. BASIC ROTATIONAL ACTIONS**

There are six (6) basic rotational actions. Twisting combines rotational actions by adding a rotation about the body head-tail axis during a rotation about the body left-right or front-back axis.

**E-1. Flat Turns**

Flat turns involve a rotation about the body front-back axis when that axis is aligned with the vertical axis. The Performer's heading is changing. The body can be belly-down or back-down while performing a flat turn.

**E-2 Pirouettes**

Pirouettes involve a rotation about the body head-tail axis when that axis is aligned with the vertical axis. The Performer's heading is changing. The body can be head-up or head-down while performing a pirouette.

**E-3 Barrel Rolls**

A barrel roll is a rotation about the body head-tail axis when that axis is aligned with the horizontal axis. A barrel roll may begin and end in a belly-down, back-down or sideways orientation.

**E-4 Cartwheels**

A cartwheel is a head-over-heels rotation about the body front-back axis when that axis is aligned with the horizontal axis. The body passes through a head-up, sideways and/or head-down orientations during the course of a cartwheel. A cartwheel needs not start nor finish in an exact head-up, sideways or head-down orientation. A cartwheel is considered to be a full cartwheel when the head has travelled 360° around the horizontal axis from the point at which it started. A cartwheel may be performed to the right or left.

**E-5. Loops**

A loop is a head-over-heels rotation about the body left-right axis when that axis is aligned with the horizontal axis. The body passes through a head-up, belly-down, head-down and/or back-down orientation during the course of the loop. A loop may begin and end in a head-up, belly-down, head-down and/or back-down orientation. A loop needs not start nor finish in an exact head-up, belly-down, head-down and/or back-down orientation. A loop is considered to be a full loop when the head has travelled 360° around the horizontal axis from the point at which is started. There are two (2) kinds of loops. (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 rotation initiated with the torso rotating backwards.

**Front Loop**

A front loop is a loop rotation initiated with the torso rotating forwards.

**E-6. Side Loops** (Loops in the sideways orientation)

A loop in the sideways orientation is a rotation about the body left-right axis when that axis is aligned with the vertical axis. For example, a Pinwheel is a true loop on the side.

**E-7. Twists**

Twisting combines rotational actions by adding a rotation about the body head-tail axis during a rotation about the body left-right or front-back axis, aligned with either the horizontal or vertical axis. There are two (2) basic categories of twists.

**Vertical Twists**

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

**Horizontal Twists**

A horizontal twist is a rotation about the vertical axis (flat turn or side loop) combined with a rotation about the body head-tail axis. A single or full twist is defined to be a 360° rotation about the body head-tail axis over the course of a 360° flat turn or side loop. For example, a Flip Through is a horizontal twist.



**F. CIRCULAR PATHWAYS**

There are two (2) basic types of circular pathways a Performer(s) may follow with respect to another team member, which can be performed either infacing or outfacing. Circular pathways may have embedded moves (e.g. Carousel).

**In-face**

The front of the torso faces inward towards the concave side of the pathway, while moving about an imaginary centre.

**Out-face (Blind)**

The front of the torso faces outward away from the concave side of the pathway, while moving about an imaginary centre.

**F-1. Carving**

The Performer's body traces a circular path about an imaginary centre in approximately a horizontal plane. Carving is performed while head-down, head-up or in other orientations.

**F-2. Vertical Orbits**

The Performer's body traces a circular path about an imaginary centre in a vertical plane. Eagles and Reverse Eagles are two (2) common forms of Vertical Orbits that involve also rotating about the Body Left-Right Axis.

**Eagle**

An Eagle begins with each team member in the opposite orientation, facing away or toward one another. An Eagle may be performed by a Performer(s) with their Videographer or by two Performers with each other. The team members travel in a Vertical Orbit while continuously leading with the head, passing through the back-down, head-up, belly-down and/or head-down orientation (in that order, if infacing, maintaining continuous eye contact). An Eagle may begin from any orientation in this progression. A Half Eagle is when 180° of vertical orbiting is complete. A Full Eagle is when 360° of vertical orbiting is complete.

**Reverse Eagle**

A Reverse Eagle begins with each team member in the opposite orientation, facing away or toward one another. A Reverse Eagle may be performed by a Performer(s) with their Videographer or by two Performers with each other. The team members travel in a Vertical Orbit while continuously leading with the feet (or tail-bone), passing through the back-down, head-down, belly-down and/or head-up orientation (in that order, if infacing, maintaining continuous eye contact). A Reverse Eagle may begin from any orientation in this progression. A Half Reverse Eagle is when 180° of vertical orbiting is complete. A Full Reverse Eagle is when 360° of vertical orbiting is complete.

## 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 jumps (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
No direction change	Reversal of direction
No synchronization with Videographer	Moves synchronised with Videographer
Eye contact	No eye contact

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

Freelying					
Manoeuvres	Very easy	Easy	Moderate	Difficult	Very difficult
Carving head down	In-face	In-face with snake (direction change) or tricks	One Performer In-face, the other out-face; In-face with snakes (direction changes) and/or tricks; out-face	Mixed or out-face with snakes (direction changes) and/or tricks; Sideflying	
Carving head up			In-face	In-face with grip and/or tricks; In-face/Out-face	In-face/Out-face with snakes (direction changes) and/or tricks; Out-face
Eagles	Half	Full; Half with one Performer reverse	Full with one Performer reverse; Full with tricks, spins; Half reverse	Full reverse; Full with one Performer reverse with tricks, spins	Full reverse with tricks, spins
Eagles on Angle		Half	Full	Full with tricks	
Synchronised moves	Tucked back/front loop	Layout loop	Layout loops with half twist	Layout loops with full twist	Layout loops with multiple twists
Angle Head-Down	Side-by-side, background is still	Side-by-side, background is moving	Side-by-side in a different orientation, background is moving	Slot swapping/rolls while background is moving, side flying	Cork screwing in sync with camera including tricks/rolls/spins; Side flying with tricks
Angle Head-Up			facing each other	side-by-side	Feet first with tricks/rolls/spins; side flying
Vertical	Double spock Compress Totem Double joker Double grip vice-versa	Sole-to-sole Vertical compressed rotations Double grips Head Up Surf	Double joker reverse Head-to-head Vertical compressed switch Totem rotation	Head-to-head rotation Double Sole-to-sole Sole-to-sole rotation	
Belly-down/back-down position	Cat Star Compressed	Brouette Cat barrel roll	Interlock (leg lock)	breakers	
Videographer flying	Static	Motion with no interaction with Performers	Continuous motion in the same axis, Direction switches	Continuous motion while moving from one axis to another	Maintaining framing while transitioning on an angle, Continuous motion

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

Freestyle Skydiving				
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 LO Cartwheel 0.5 twist LO Cartwheel	F/B LO 1.5 twist LO Cartwheel 1 twist Consecutive full twists	F/B LO 2 or more twists LO Cartwheel 1.5 or more twists Consecutive double twists
Straddle Standup	Straddle headstand	Straddle Cartwheel, Straddle headstand pirouette, Swan (headstand with legs straight and together, with a straight body)	Swan spin	Head-down spin with legs at 90° (Pike)
Flip through		Thomas Flair		
Symmetrical head- up poses (i.e. Standup, V-Seat, Straddle Seat, Sitfly)	Daffy headstand, Daffy switch, Daffy swivel, Daffy reverse Head-down carve Head-up carve	Compass switch, Compass swivel, Compass illusion, Compass inversion, Billman, Helicopter	Swan pirouette, Helix spin, Stag LO 1 twist, Eouzan	Blind carving with 360° pirouette inside the carve
Tee Tee reverse Tee switch Tee swivel Pinwheel	Back-down Tee, Propeller, Arabian	Stag kick pirouettes, Stag spin	Robin Spin	Fast Robin Spins (2 or more) with quick stop
		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)
	Half Eagle	Half Eagle + tricks, Full Eagle, Half Reverse Eagle	Half Reverse Eagle + tricks, Full Reverse Eagle, Full Eagle + tricks	Full Blind Eagle, Full Reverse Eagle with tricks, Half Eagle with Breaker

No stops are allowed between (part of) twists or these parts will be valued as single twisting moves.

**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).

## ADDENDUM - D ROUTINE DESCRIPTION

*Instructions for use:*

Word file (recommended):

- Download the addendum – D as word.doc on a PC and save it, preferably under your Team country name and number.
- Fill in the required data. If a selection has to be made delete the data which you don't need and leave the needed ones.
- Add rows in the Free Routine description if needed.
- When done, save it again under a name relating to your team and event.
- Print the document and deliver it to the Chief Judge.

PDF file:

- Print the page of the addendum – D.
  - Fill in the required data with pen (black or blue only). If you need to select, circle the appropriate event / round.
  - Print the last page with boxes only if you need more rows in the Free Routine description.
  - When done, deliver it to the Chief Judge.
- **Do not write out of the boxes, or in the sidelines or edges of the paper.**

Team number #	Team country:			
Please indicate the event <i>(handle as appropriate)</i>	<b>FREESTYLE SKYDIVING – FREEFLYING</b>			
State the order in which the compulsory sequences will be performed. The valid sequences are at: <a href="http://www.fai.org/ipc-documents">http://www.fai.org/ipc-documents</a> , then look for « artistic events »				
First Compulsory Round, round 2: <i>(FR-1 through FR-4, or FF -1 through FF-4)</i>				
Compulsory Sequence Max Value:				
Second Compulsory Round, round 5: <i>(FR-5 through FR-8, or FF -5 through FF-8)</i>				
Compulsory Sequence Max Value:				
The Free Routine List of elements covers the following rounds <i>(handle as appropriate)</i>	<b>ALL - 1 - 3 - 4 - 6 - 7</b>			

#	Name of move / sequence	Difficulty Value
1		
2		
3		
4		
5		
6		
7		
8		
9		