



**AUSTRALIAN PARACHUTE FEDERATION**

# **Competition Rules – Artistic Events**



**VERSION 01-2024**

**Status: Mandatory**

**Warning**

***Parachuting and flying in parachuting aircraft can be dangerous.***

**Version Control**

It is important that members refer to the current version of this document. Current Version number is shown on the front cover and in the below table.

Current versions of these rules and any associated documents can be found on the APF website. Significant changes made from the previous version are shown in Amendments.

These rules are based on the relevant International Skydiving Commission (ISC) competition rules. Variations from those rules are indicated by italic text.

CURRENT VERSION	RELEASE DATE
01-2024	28 February 2024

PREVIOUS VERSIONS	REPLACED BY
10-2023	01-2024
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**AMENDMENTS**

VERSION	AMENDMENT DETAILS
01-2024	Re-numbered and updated to conform to ISC rules. Included addenda.
10-2023	Taken from previous version of Sporting Code, separated into own document.

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## 1 APF AUTHORITY

*The competition will be conducted under the authority granted by the APF, according to the regulations of the Sporting Code and these rules.*

## 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 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.
- Freestyle Skydiving Routine: Working Time is 45 seconds.
  - Freeflying Routine: Working Time is 43 seconds.

## 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**

Exit altitude: 13,000 feet (3,960 m) AGL.

### **3.4 Champions:**

3.4.1 After all completed round(s), *Australian* Champions in Freestyle Skydiving and in Freeflying, will be declared.

3.4.2 The Freestyle Skydiving Champions and the Freeflying 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.

## **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 Judging Order**

The Judging 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 *Australian National* Championships. 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 the final rounds will start. The final rounds will be executed by an updated reverse-order 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.

### **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 them. 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 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 and the *Meet Director*. 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 Organizer must provide the Teams with a way of identification of each Team, showing the team number to be recorded by the Videographer just before exit.
- 4.4.9 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 points.

## 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 any of the competitor's equipment shall not be grounds for a rejump.
- 4.5.4 Adverse weather conditions during a jump are no grounds for protest. However, a rejump may be granted at the discretion of the Chief Judge.
- 4.6 **Wind tunnel:** Competitors are not allowed to use a wind tunnel (freefall simulator) after the commencement of the competition, until the end

## 5 RULES SPECIFIC TO THE EVENT

### 5.1 Teams

- 5.1.1 Teams may consist of either or both sexes.
- 5.1.2 Team members are allowed to change their position in the Team.
- 5.1.3 Each Team Member may compete in maximum two (2) Teams per Event, in different events only (Freestyle Skydiving and Freeflying), as Performer or as Videographer.

### 5.2 Routines

The discipline is comprised of Compulsory Routines and Free Routines.

- 5.2.1 Compulsory Routine:** The Compulsory Routines consist of four (4) Compulsory Sequences as described in the relevant Addenda A, and other moves at the Teams' discretion. The order in which these Compulsory Sequences and other moves can be performed is determined by the Team.
- 5.2.2 Free Routine:** The content of the Free Routine(s) is chosen entirely by the Team.
- 5.2.3 Submission of Compulsory Sequences with Max Values and Free Routine Videos:
- 5.2.3.1 Teams must deliver the order of the Compulsory Sequences and their chosen Max Values (for both Compulsory Rounds) to the Chief Judge before the beginning of the competition.
- 5.2.3.2 Failure to provide the order of the Compulsory Sequences and their Max Values will lead to a score of zero (0) points for that round.
- 5.2.3.3 Executing Compulsory Sequences in a different order than the one submitted, will lead to a score of zero (0) for the sequences that are out of order.
- 5.2.3.4 Teams must deliver a video of their Free Routine(s) to the Chief Judge at least 24 hours before the start of the competition. (Teams may optionally include a written list of elements and/or present and explain their Free Routine to the panel). Each Team may submit multiple Free Routines, but, during the competition, may submit a change only one time. Teams must declare which Free routine they will perform for each Free Round.
- 5.2.3.5 Failure to provide the video of the Free Routine(s) will lead to a score of zero (0) points for Initial Technical score for all Free Routines.
- 5.2.3.6 For this purpose, see Addendum D.
- 5.2.3.7 *For Inter Freeflying:*
- (a) *The first Compulsory Block Routine consists of four of the five compulsory sequences marked A to E in the relevant Addendum A.*
- (b) *The second and third Compulsory rounds are speed rounds consisting of three randoms each from the compulsory sequences marked 1 to 6 in the relevant Addendum A.*

*The Draw for Inter Freefly draw will be as follows:*



- (a) *All Compulsory Sequences, A to E as shown in Addendum A, will be placed in one container. The Compulsory Block Round consists of four Compulsory Sequences which will be drawn one at a time from this container, without replacement.*
- (b) *All Compulsory Sequences, 1 to 6 as shown in Addendum A, will be placed in one container. Each Compulsory Speed round consists of three Random sequences which will be drawn one at a time from this container without replacement. After all the compulsories have been drawn, those not in the current compulsory round (which is incomplete) will be replaced in the container and the draw will continue for the remainder of that round.*
- (c) *Free Routines: The content of the Free Routine(s) is chosen entirely by the Team.*

### **5.3 Competition Rounds**

#### **5.3.1 Full competition:**

Compulsory Routines: two rounds

Free Routines: five rounds

*Intermediate Competition:*

- *Full Competition: Inter Freefly*
- *Compulsory Routines: three rounds (two speed rounds and one block round)*
- *Free Routines: four rounds*

#### **5.3.2 Minimum Competition: one round**

#### **5.3.3 Jump order of the Open routines must be: F - C - F - F - C - F - F**

(C = Compulsory Routine, F = Free Routine)

*Jump order of the Inter Freefly routines must be: F - CB - F - CS - F - CS - F*

*(CB = Compulsory Block Routine, CS = Compulsory Speed Routine, F = Free Routine)*

#### **5.3.4 Finals: The sixth and seventh round shall be the final rounds, and should be judged in a reverse order of standing.**

## **6 JUDGING AND SCORING**

### **6.1 General**

Once any Team Member has left the aircraft, the jump shall be evaluated and scored.

### **6.2 Scoring Free Routines**

Before the start of the competition, the Judges will view the submitted videos and determine the initial technical score, between 0.0 and 10.0 expressed as a number up to one (1) decimal point, taking into account the following guidelines:

**Initial Technical Score:**

- (i) Variety of orientations used (Head-up, Head-down, Belly-down, Back-down, Sideways, Diagonal, Angle, etc.)
- (ii) Variety of moves and styles (Carving, Eagles, Tricks, Acrobatics, etc.)
- (iii) The degree of difficulty of all moves and transitions (e.g., movements and spins in both directions, multiple simultaneous rotations, combined moves, original moves, etc.)
- (iv) Overall technicality of flying: holding the body, orientation, confidence in flying and manoeuvres, control, etc.
- (v) Team Work: The ability to combine technical skills and create complex effects of movement, including the degree of the Videographer’s involvement in the routine.
- (vi) See Addendum C.

During the competition, three Judges determine Execution deductions, according to the following guidelines:

**Freestyle Skydiving:**

Up to 1.0 point deduction	For each missing element (for example, single instead of double)
0.1 to 0.3 points deduction	For each instance, the Performer is off heading/off level/wobble

**Freeflying:**

Up to 1.0 point deduction	For each missing element
Up to 0.5 point deduction	For each instance, one or both Performers are off heading/off level/wobble
Up to 0.5 point deduction	Team work: Levels between the performers/synchronization between members (including camera)/proximity between performers (excluding camera)

Each of the three Judges will total all their Execution deductions.

**Presentation:**

During the competition, the Judges will give a presentation score, between 0,0 and 10,0 expressed as a number up to one (1) decimal point, taking into account the following guidelines;

**Creativity and routine composition:**

- Routine is **aesthetically** pleasing to watch and has a good flow.
- **Creative choreography (original** routine composition)
- Well executed **new moves** (and/or new presentation of old moves)
- There is a definite **beginning** and a definite **ending**.

**Camera Work:**

- Good use of video angle(s)
- Creative interactivity
- Clean image and clear focus shown.

During the competition, two (2) Judges determine Camera deductions, according to the following guidelines:

Up to -2.0 points	Proximity overall jump: Performer(s) too far away from camera
Up to -1.0 points	Proximity overall jump: Performer(s) at medium distance from camera.
-2.0 points	For each instance, both Performer(s) are completely out of the frame.
-1.0 points	For each instance, one Performer is completely out of the frame.
-0.1 to -0.5 points	For each instance, Performer(s) is/are off centre frame
-0.1 to -0.5 points	For each instance of unintentional cropping body part(s) off frame.
-0.1 points	For each instance, any part of the videographer body/equipment is in the frame

- To encourage enhanced video, when “full frame” close video of the Performer(s) is shown, there will be no deduction for cropping the hands, feet, or part of the helmet out of the frame.
- Each of the two Judges will total all their camera deductions.

**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 Compulsory Sequences relative to the Max Value of the Team's selected Compulsory Sequences using the following guidelines:

	Deduction UP TO	Explanation	Example
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Major part of the compulsory	Up to 50%	The part that defines the sequence	The twist in the loop twist; Angle position; body orientation; etc.
Set-up	Up to 10%	Facing the correct direction; In the correct body position. Camera in place.	Whatever is described as “at the beginning...” for orientation, body position, and camera place
Static Camera Work:  (on top of the setup)	Up to 50%  Up to 20%	When the camera is too far to judge the move  Camera is moving when static image is required	  When not on the specified level or not at the right angle
Required Camera move	Up to 30%	When camera is doing the wrong move	Wrong roll direction, synchronization, carving, etc.
Image Orientation	30%	The video image must be upright with the sky in the upper portion of the frame throughout each compulsory sequence, except where the Sequence specifically prescribes	
Specific body position requirements	Up to 30%	When the move required specific body position or specific level between flyers	Layout position Straddle position
Specific Grips	30%	When specific grip/docks are wrong	Hand to hand / feet on shoulder / lower legs on the cat move
Execution mistakes	Up to 30%	Flow, Wobble, Off heading, Off centre	
Specific Judging Guidelines	See Addendum A	As specified for each compulsory	See Addendum A

Presentation in the Compulsory Routines such as extra transitions between moves, extra moves at the beginning, end and in between the compulsories are scored. If the Judges cannot identify any Presentation element, the score for presentation will be 0.0 points.

- 6.3.1 If the Judges determine that the Team has performed a lower Max Value of a Compulsory Sequence than the declared Max Value, the maximum score will be 0.5 points less than the lower Max Value actually performed.
- 6.3.2 The Judges will only score the Compulsory Sequences they recognise. If an attempt is made for a Compulsory Sequence and the Judges recognise 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:

*For all events the score for each round (except the speed Compulsory Rounds Freelying) 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. Each average score for a Compulsory Sequence will be multiplied by 0.225, the average score for Presentation will be multiplied by 0.1, and then the sum of these five (5) values will be rounded to the first decimal place.
- **Free Rounds:** the three (3) total scores for the Execution criterion will be added, and the result will be divided by three,(3) with no rounding applied. The two (2) total scores for the Camera deductions will be added, and the result will be divided by two (2), with no rounding applied. The highest and lowest Judges' scores for the Presentation criterion will be discarded, the remaining three (3) scores for Presentation will be averaged separately, with no rounding applied.
  - To determine the Technical score, the averaged Execution score will be deducted from the Initial Technical score. The minimum possible score for Technical is zero (0) points.
  - To determine the final Presentation score, the averaged Camera score will be deducted from the averaged Presentation score, with no rounding applied. The minimum possible score for Presentation is zero (0) points.
  - 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 (2) decimal places to one (1), by rounding to the nearest tenth, except where the second decimal digit is exactly halfway between the two (2) 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, for all competition jumps, will be published.

6.4.3.1 The Initial technicality scores will be published before the start of the competition.

**6.4.4 Scoring Speed Compulsory Routine (Inter Freeflying)**

6.4.4.1 *For Inter rounds four and six (Speed Compulsory Rounds), Judges will give a score for the team as follows:*

- (a) *Scoring Random is a random which is correctly performed in the drawn order and which, apart from the first formation after exit, must be preceded by a correctly performed total separation. All randoms and total separations must be clearly shown on video.*
- (b) *Each correctly performed random will receive one point within the allotted working time. Teams may continue scoring by continually repeating the drawn randoms.*
- (c) *Any incorrectly performed or non-judgeable random will lead to a score of zero points for that random.*
- (d) *Failure to meet the requirement of total separation will lead to a deduction of one point.*
- (e) *An omitted random will lead to a deduction of two points. An omission is one of the following:*
  - (i) *A random is missing from the drawn sequence.*
  - (ii) *No clear intent to build the correct Random is seen and another formation is presented and there is a clear advantage to the team resulting from this substitution.*

6.4.4.2 *The minimum number of points for this compulsory round is zero points.*

6.4.4.3 *A majority of the Judges must agree on the evaluation of correct, incorrect or non-judgeable Randoms, of the total separation requirement and of an omission.*

6.4.4.4 *All the scores for this compulsory round will be recalculated by means of the following formula:*

- (a) *The total of scoring formations plus one will be taken. This result will be raised to the power of four; of this result the natural logarithm will be taken and deducted by two.*

- (b) *The mathematical formula is:  
 $MAX(LN((Number\ of\ points\ turned + 1) ^ 3.68) - 2.0)$*
- (c) *The formula means to take the maximum value, the result of the equation or the value 0. The result of this will be rounded to the first decimal place, as stated in 0.*
- (d) *Freefly compulsory (speed) round score chart:*

Points	0	1	2	3	4	5	6	7	8	9	10
Score	0	0.55	2.04	3.1	3.92	4.59	5.16	5.65	6.09	6.47	6.82

Points	11	12	13	14	15	16	17	18	19	20	21
Score	7.14	7.44	7.71	7.97	8.2	8.43	8.64	8.84	9.02	9.2	9.38

Points	22	23	24	25	26						
Score	9.54	9.7	9.85	9.99	10.13						

## 6.5 Judging Rules

6.5.1 The jumps shall be judged using the video evidence as provided by the videographer.

6.5.2 *At least three (and preferably five) Judges must evaluate each team’s performance. Where possible, a complete round shall be judged by the same panel. At a National Championship, the judging panel should have a majority of Judges who are Nationals-endorsed for Artistic events.*

**6.5.2.1 Compulsory Routines:** *all three (or five) Judges will evaluate the routines.*

**6.5.2.2 Free Routines:** three Judges will evaluate the Execution criterion. Two Judges will determine Camera deductions. All five Judges will evaluate the Presentation criterion. If there are only three judges they shall evaluate all elements.

**6.5.2.3 Inter Freeflying Compulsory Block Round:** *the average scores for each sequence will be added, and the result will be divided by four and rounded to the first decimal place as described in 0.*

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%) and/or use of video pause.
- 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 If, for weather reasons, no training jumps are possible, Teams can deliver a maximum of two previous training jumps for scoring and move explanation. For (previous and official) training jumps, no scores for Presentation will be given.
- 6.6.3 Before the start of the training jumps, the Team Captain has the option to explain the delivered Free Routine description sheet(s).

### **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: Initial Technical score
- 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)
- If the Judges determine that the Team has performed a lower Max Value of a Compulsory Sequence than the declared Max Value, the maximum score will be 0,5 points less than the lower Max Value actually performed.
- The Compulsory Sequences must be performed in the submitted order.
- 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. Otherwise, the maximum possible score for the Compulsory Sequence is 70% of the Max Value.
- The definition of each body position is described in Addendum B.
- Youtube playlist for compulsories:

<https://youtube.com/playlist?list=PLSLmrmjmQczovnpv8e3NngzAgK1LFeaMa>

### 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 s/he is above the Videographer).
- The Videographer must show the Performer from his/her front throughout the whole sequence, with the exception of the full tight tuck front loop.

### **Judging guidelines**

- When the tuck is not tight for the front loop, 15% will be deducted.
- When the front of the Performer is not shown throughout the whole sequence (except for the front loop), 20% will be deducted.
- When the front loop is not performed above the Videographer in the middle of the second part of the Eagle, 15% will be deducted.

### **FR-2 Mixed Carve**

#### Carve

- At the beginning, the Performer must be in a head-down orientation, facing the Videographer.
- The Performer and Videographer must inface carve 180° around an imaginary centre, stop (stall), make a transition to head-up outfacing through the belly-down orientation.
- In the head-up orientation, outfacing, the Performer then carves 180° in the opposite direction.

#### Videographer requirements

- Videographer must show the front of the Performer while the Performer is inface carving, and the back of the Performer while outface carving.
- While carving, the 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 (and show the Performer on the horizon) throughout the sequence.
- Videographer must maintain the same distance from the Performer throughout the sequence.

#### **Max Value 5 pts: Inface Carve with Switching Direction**

- At the beginning, the Performer must be in a head-down orientation, facing the Videographer.
- The Performer and Videographer must carve 180° around an imaginary centre, stop, and then inface carve 180° to the opposite direction.

#### **Max Value 7,5 pts: Mixed Carve**

- The Mixed carve is performed as described above.

#### **Max Value 10 pts: Layout Mixed Carve**

- The Mixed Carve is performed as described above, and:
- The Performer must maintain the layout position throughout the sequence.

### **Judging guidelines**

- When the Performer is not in layout position when it is required, 30% will be deducted.
- If the Performer, during the outface carving, flies in a straight line instead of carving, 30% will be deducted.

### **FR-3 Rebound**

#### Rebound

- The Performer is in a head-down or angle back-flying orientation, facing the Videographer.
- The Performer makes a half reverse eagle over the Videographer (“back-layout”) to the belly.
- The Performer then makes a half eagle (“front layout”) to a head-down or angle back-flying, ending on the original heading in the original starting position.
- The Performer must keep an eye contact with the Videographer throughout the sequence.

#### Videographer requirements

- The Videographer shows the Performer on the horizon at beginning, middle and the end of the sequence.

#### **Max Value 7.5 pts: Rebound**

The Rebound is performed as described above.

#### **Max Value 10 pts: Rebound with a Roll**

The Rebound is performed as described in 7,5 points, but:

Once on the belly, the Performer makes a 360° barrel roll in the middle of the sequence, on the horizon. (“Back Layout” - 360° Roll - “Front Layout”)

#### **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/hips.

##### **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, and 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 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 the second loop.
- Looping motion must be smooth.
- The sequence must end with a momentary stop, in a layout position in head-up orientation, on the same heading as the beginning.

##### **Judging guidelines**

- When the half or full twists not within the second loop, 30% to 50% will be deducted.
- If there is stopping between the loops, 15% will be deducted.
- If no momentary stop is shown at the end, the maximum score will be 9,5 points.

## **SECOND COMPULSORY ROUND (ROUND 5)**

#### **FR-5 Reverse Eagle Sequence**

##### **Half Reverse Eagle**

- At the beginning, the Performer is in a head-up orientation, facing the Videographer.
- 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.

**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), with the knees straight, throughout the sequence. (The legs may be separated.)

### **FR-6 Angle Flying**

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

- Performer is flying at a minimum of 20° diagonally off vertical and horizontal compared to the horizon with the head low.
- Videographer must demonstrate an on-level position.

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

- Performer is facing upward.
- This angle flying must be maintained for a minimum of three (3) seconds.
- Videographer must show Performer from his/her side throughout the sequence.

#### **Max Value 5 pts: Angle Flying Roll**

- The move is performed as described above.
- After 3 seconds of angle flying, The Performer will make a 180° rotation on the Body Head-Tail axis (half a barrel roll into face-down) while maintaining the heading and the angle.
- Videographer maintains position and must show Performer from his/her side at the beginning and the end of the move.

#### **Max Value 7,5 pts: Angle Flying with a Loop**

- The Performer is angle-flying on the belly, with the head low for a minimum two (2) seconds.
- The Performer makes a front loop to head high angle-flying on the belly traveling in the opposite direction.
- The Performer holds the head high angle-flying for a minimum two (2) seconds.
- Videographer must show Performer from his/her side throughout the sequence.

#### **Max Value 10 pts: Layout Angle Flying with a Loop**

- The Angle Flying with a Loop is performed as described in 7,5, but the Performer must maintain a layout position through the entire sequence.

#### **Judging guidelines**

- When this Compulsory Sequence is performed first in the compulsory routine, 70% will be deducted.

### **FR-7 Side Flying**

#### **Rotating Side Pose**

- At the beginning, the Performer is on his/her side, with his/her legs together, facing the Videographer.
- While on his/her side, the Performer makes a 360° rotation (either forward or backwards).

#### **Videographer requirements**

- Videographer must be on the same level with the Performer
- Videographer must maintain the same distance from the Performer throughout the sequence.

#### **Max Value 5 pts: Rotating Side Pose**

- The move is performed as described above.

#### **Max Value 7.5 pts: Rotating Layout Side Pose**

- The move is performed as described above.
- The Performer must be in a layout position, without a bent in the waist/hips/knees, with his/her legs together.

#### **Max Value 10 pts: Rotating Layout Side Pose with a Stop**

- A layout side rotation is performed as described above.
- At the end of the rotation, the Performer must hold a side pose, in a layout position for minimum of two (2) seconds.

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

- Performer is in straddle position, without any forward bend at the waist/hips, in head-up orientation, with the toes pointed and the knees straight.
- Spins can be in either direction.
- At the beginning and end, the Performer must show a momentary stop in the Head-up Straddle.
- 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, 30% will be deducted.
- When the legs are clearly not straddled at least 90° apart, 30% to 50% will be deducted.
- If there is a forward bend at the waist/hips, 50% will be deducted.
- if no momentary stop is shown at the beginning **or** end, 5% will be deducted.
- If the stop is not shown at the beginning **and** end, 10% will be deducted.
- When the toes are not pointed and/or the knees are not straight, 10% will be deducted.

## 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)
- If the Judges determine that the Team has performed a lower Max Value of a Compulsory Sequence than the declared Max Value, the maximum score will be 0,5 points less than the lower Max Value actually performed.
- The Compulsory Sequences must be performed in the submitted order.
- When the layout position is specified, both legs must be together (max shoulder width), with the knees straight, without any bend at the waist/hips.
- 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. Otherwise, the maximum possible score for the Compulsory Sequence is 70% of the Max Value.
- The definition of each body position is described in Addendum B.

### FIRST COMPULSORY ROUND (ROUND 2)

#### ***FF-1. 2-way Eagle***

##### Half Eagle

- One Performer is in a head-up orientation, the other in a head-down orientation, on level.
- The head-down Performer goes below the head-up Performer, as the head-up Performer 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 Half Eagle should be performed as one continuous movement.
- The Half Eagle must remain on the same heading.

##### Videographer requirements

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

#### **Max Value 5 pts: 2-way Half Eagle**

- The move is performed as described above.

#### **Max Value 7,5 pts: 2-way Full Eagle**

- The move is performed as described above, then:
- The movement continues until the Performers 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.

**Max Value 10 pts: 2-way Full Eagle with Synchronised Roll**

- The move is performed as described for 7,5 points and:
- 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**

- When the Videographer makes the roll in the wrong direction, 30% will be deducted.
- When the Full Eagle is not performed as one continuous movement, 20% will be deducted.

**FF-2. Cat Barrel Roll**

**Cat position**

- Both Performers are in belly-down orientation.
- One Performer has grips on the lower legs or feet of the other Performer, the right hand on the right lower leg/foot and the left hand on the left lower leg/foot.
- 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: Single Cat Barrel Roll**

- The move 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/hips, with the knees straight, throughout the entire sequence.

**Judging guidelines**

- One or both grips in wrong location (i.e., not on lower leg/feet), 30% will be deducted.
- If the two (2) barrel rolls are not consecutive and smooth, 20% will be deducted.
- When one Performer is not in layout position when it is required, 25% will be deducted.
- When both Performers are not in layout position when it is required, 40% will be deducted.

**FF-3. 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 is allowed.)
- A hand-to-hand grip is taken (left-to-right hand or 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 is 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), 50% will be deducted.
- When double hand-to-hand grips are not taken simultaneously, 20% will be deducted.
- When only one (1) grip is taken when two (2) should be taken, 30% will be deducted.
- When any grip(s) is (are) not hand-to-hand, 30% will be deducted.

***FF-4. Angle Flying***

- Both Performers are flying at a minimum of 20° diagonally off vertical and horizontal compared to the horizon with their heads low.
- The Videographer must demonstrate an on-level position.

**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 three (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 a Loop (video on the front)**

- At the beginning, both Performers are angle flying side-by-side on the belly, with their heads low for a minimum two (2) seconds, facing the Videographer. The Videographer is back-flying in the same direction as the Performers.
- The Performers make a synchronised front loop to head high angle-flying on the belly traveling in the opposite direction. Synchronous with the Performers' front loop, the Videographer must pass underneath the Performers.
- At the end, both Performers are angle flying side-by-side on the belly, with the head high for a minimum of two (2) seconds, facing the Videographer. The Videographer is back-flying in the same direction as the Performers.
- The Videographer must show the Performers from their front at the beginning and at the end.

**Max Value 10 pts: Angle Flying with a Loop (video on the side)**

- At the beginning, both Performers are angle flying side-by-side on the belly, with their heads low for a minimum two (2) seconds.
- The Performers make a synchronised front loop to head high angle-flying on the belly traveling in the opposite direction.
- At the end, both Performers are angle flying side-by-side on the belly, with the head high for a minimum two (2) seconds.
- The Videographer must show both Performers from their side throughout the sequence.



## SECOND COMPULSORY ROUND (ROUND 5)

### **FF-5. 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 angular speed as the Performers.
- Videographer must stay on the same level as the Performers.

#### **Max Value 3 pts: 360° Head-Down Carve**

- The move is performed as described above.

#### **Max Value 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 7,5 pts: Outface Head-Down Carve with Videographer Carving**

- 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, and on the same level.
- A minimum of 720° of carving must be performed by the Performers.
- A minimum of 360° of carving must be performed by the Videographer.

#### **Max Value 10 pts: Outface Head-Down Layout Carve with Videographer Carving**

- Outface Head-Down Carve is performed as described above plus the following:
- Both Performers must be in a layout position, without any bend at the waist/hips, with the knees straight throughout the sequence.

### **FF-6. Peekaboo – Side stalls**

#### Peekaboo

- At the beginning of the sequence, both Performers are in a head-down orientation, on the same heading facing the same direction, one behind the other, with their heads on the same level.

#### Side stalls

- Both Performers make a minimum of two (2) side stalls (one, and then the other to the opposite direction), and end back at the start position with one behind the other.
- Two (2) side stalls in a row should reach an angle of at least 30° with respect to the vertical.
- The torsos and the hips must maintain the same heading throughout the sequence. (The Performers may cross the front leg past the midline of their body over to the side, as long as they do not rotate their hips.)
- The side stalls must be synchronised.
- The proximity between the Performers must be such that the overall sequence appears symmetrical in timing.
- **No** momentary stop is required at the beginning or at the end.

#### Videographer requirements

- The Videographer must show the front of the front Performer.

- The back Performer is hidden by the front Performer at the beginning, and each time while passing the vertical, and at the end of the sequence.
- The Videographer must stay on the same level as the Performers and maintain the same heading throughout the entire sequence.

**Max Value 5 pts: Peekaboo (with Body Head-Tail rotation allowed)**

- The Peekaboo is performed as described above, but the Performers may rotate to their belly or back during the side stalls.

**Max Value 10 pts: Peekaboo**

- The Peekaboo is performed as described above.

**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.
- Both Performers must be in a layout position throughout the sequence.

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: Single Back Layout**

- The move is performed as described above.

**Max Value 7,5 pts: Two (2) Back Layouts**

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

**Max Value 10 pts: Two (2) 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, 30% will be deducted.

**FF-8. Rebound**

**Max Value 5 pts: Half Linked Rebound**

- Both Performers are side-by-side in a head-down or angle back-flying orientation, facing the Videographer.
- A hand-to-hand grip (left hand of one Performer with the right hand of the other Performer or vice versa) is taken.
- While maintaining the grip, the Performers make a half reverse eagle over the Videographer (“back layout”) to the belly and **release the grip**.
- The Performers then make a half eagle (“front layout”) to a head-down or angle back-flying orientation, ending on the original heading in their original starting position.
- The Performers must maintain eye contact with the Videographer throughout the sequence.

Videographer requirements

- The Videographer is facing the Performers and shows them on the horizon at the beginning, middle, and end of the sequence.

**Max Value 7,5 pts: Rebound with a Roll**

Half Linked Rebound

- Both Performers are side-by-side in a head-down or angle back-flying orientation, facing the Videographer.
- A hand-to-hand grip (left hand of one Performer with the right hand of the other Performer or vice versa) is taken.
- While maintaining the grip, the Performers make a half reverse eagle over the Videographer (“back layout”) to the belly and **release the grip**.
- Once on the belly, both Performers simultaneously make a 360° barrel roll in place, maintaining the same heading.
- The Performers then make a half eagle (“front layout”) to a head-down or angle back-flying orientation, ending on the original heading in their original starting position.
- The Performers must maintain eye contact with the Videographer throughout the sequence.

Videographer requirements

- The Videographer is facing the Performers and shows them on the horizon at the beginning, middle, and end of the sequence.

**Max Value 10 pts: Linked Rebound with a Tucked Loop**

- Both Performers are side-by-side in a head-down or angle back-flying orientation, facing the Videographer.
- A hand-to-hand grip (left hand of one Performer with the right hand of the other Performer or vice versa) is taken and is **maintained throughout the sequence**.
- While maintaining the grip, the Performers make a half reverse eagle over the Videographer (“back layout”) to the belly.
- Once on the belly, both Performers, while maintaining the grip, then make a half eagle (“front layout”) back to their original starting position.
- The Performers must perform a linked tight tuck front loop (trick) in the middle of the linked half eagle (“front layout”) (when they are above the Videographer).
  - At the end, both Performers should be in their original starting position.

## 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 be 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 (Angle) 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 and 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. During a right flat turn, the upper body is moving towards the right shoulder, or vice versa.

### **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. During a right pirouette, the front of the chest is rotating towards the right, or vice versa.

### **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. During a right barrel roll, the front of the chest is rotating towards the right, or vice versa.

### **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. During a right Cartwheel, the upper body is moving towards the right shoulder, or vice versa.

### **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).

### **Inface**

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

### **Outface (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 - INITIAL TECHNICAL SCORE

	<b>Easier</b>	<b>More difficult</b>
<b><u>Body position</u></b>	Large support base	Small support base
	“Broken” Body Position	Layout body position
<b><u>Orientation</u></b>	Head-down	Head-up
	Vertical movement	Travelling movement
<b><u>Moves</u></b>	Minimum or no Variety of moves and styles	Variety of moves and styles (Carving, Eagles, Tricks, Acrobatics, etc)
	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 axis	Transitions between moves with different axes
	Single rotation	Multiple rotations
	Single move	Consecutive moves with minimal setup
		Combined moves (a move within a move)
	No direction change	Reversal of direction
	No speed changes	A lot of speed changes
<b><u>Team work</u></b>	No synchronisation with Videographer	Moves synchronised with Videographer
	Team members facing each other	Team members “out facing” from each other (Blind)
	“Static framing”	Ongoing camera moves in all axes

## ADDENDUM D - ROUTINE DESCRIPTION

Please fill electronically and send together with the video file.

Team number #	Team Name & country:			
Please indicate the event (delete the unnecessary)	<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/isc-documents">http://www.fai.org/isc-documents</a> , then look for « artistic events »				
First Compulsory Round, round 2: (FR-1 through FR-4, or FF -1 through FF-4)				
Compulsory Sequence Max Value:				
Second Compulsory Round, round 5: (FR-5 through FR-8, or FF -5 through FF-8)				
Compulsory Sequence Max Value:				
The Free Routine List of elements covers the following rounds (handle as appropriate)	<b>ALL - 1 - 3 - 4 - 6 - 7</b>			
#	Name of move / sequence	Camera work details		
Exit				