



# **Competition Rules, B category**

## **ARTISTIC EVENTS**

*Freefly and Freestyle*



# Table of content

<b>Chapter 1: DFU Authority</b>	<b>2</b>
1.1 Authority	2
<b>Chapter 2: Definitions of Words and Phrases used in these Rules</b>	<b>2</b>
2.1 Team	2
2.2 Heading	2
2.3 Move	2
2.4 Grips and docks	2
2.5 Routine	2
2.6 Working time	2
<b>Chapter 3: The Events</b>	<b>3</b>
3.1 Discipline	3
3.2 Objectives of the Events	3
3.3 Exit altitude	3
3.4 Danish Champions	3
<b>Chapter 4: General Rules</b>	<b>4</b>
4.1 Exit procedure	4
4.2 Jump Order	4
4.3 Jump abortion	4
4.4 Air-to-air video recording	4
4.5 Re-jumps	5
4.6 Wind tunnels	6
<b>Chapter 5: Rules specific to the event</b>	<b>6</b>
5.1 Teams	6
5.2 Routines	7
5.3 Number of rounds	7
5.4 Jump order of Routines	7
5.5 Tie Breaks	7
<b>Chapter 6: Judging and scoring</b>	<b>8</b>
6.1 General	8
6.2 Scoring Free Routines	8
6.3 Scoring Compulsory Routines	9
6.4 Score calculation	10
6.5 Judging rules	11
<b>Chapter 7: Determination of Danish Champions</b>	<b>12</b>
7.1 Determination of Danish Champions	12
<b>Chapter 8: Final Decision</b>	<b>12</b>
8.1 Final Decision	12
<b>Annexes</b>	<b>13</b>
Addendum A1: Freestyle skydiving compulsory sequences	13
Addendum A2: Freefly skydiving compulsory sequences	16
Addendum B: Basic body position, orientations and rotations	18
Addendum C: Difficulty	25
Addendum D: Routine description	28



## DFU COMPETITION RULES FOR ARTISTIC NATIONALS FREESTYLE SKYDIVING AND FREEFLYING 2021

---

### 1. DFU Authority

---

- 1.1. The competition will be conducted under the authority granted by the DFU according to the regulations. All participants accept these rules together with those laid down in the DFU operations manual/and or any local SOP 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 Freefly 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 **42 seconds later**.

---

### 3. The events

---

3.1. **Discipline:** the discipline will comprise the following events:

#Freestyle and Freefly: Exit altitude **4000 m** AGL, working time is **45 seconds**.

A Category up to 7 Rounds (2 Compulsory Rounds, 5 Free Rounds)

B Category up to 7 Rounds (2 Compulsory Rounds, 5 Free Rounds)

**NOTE:** In order to compete in the A Category Freestyle and Freefly events, ALL COMPETITORS must hold the HD2 qualification. The reason for this is that some of the sequences require the competitors to fly in a head-down orientation and, without this qualification, they may not be able to complete the round.

HU2 must be held for B Category Freefly competitors, however if the videographer flies in head down orientation that jumper must hold HD2.

B Category Freestyle allows one (1) team member to only hold HU1, however all team members can hold HU2.

### 3.2. Objectives of the Events

3.2.1. The objective for the team is to record a sequence of moves in freefall with the highest possible merit.

*Although no maximum qualification level, jump numbers or experience is set for B Category discipline, competitors and teams please respect the aims of these classes are to encourage lower experienced and newer competitors to compete at an introductory level and on a more even playing field. B team performers will not be scored for any head down moves.*

3.3. **Exit altitude:** 4000 m AGL.

### 3.4. Danish Champions:

3.4.1. After all completed rounds Danish Champions in Category A and Category B Freestyle Skydiving and Freefly will be declared.

3.4.2. The Freestyle Champions and the Freefly 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. If a tie still exists, the procedure as in para. 5.5.1. will apply (including all completed free rounds) until a clear placing is determined.

---

## 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:** If possible the initial jump order will be by draw and will be maintained until the final rounds have been completed. This jump order should be maintained throughout the competition, except for any logistical changes, including manifesting constraints deemed necessary by the Chief Judge and the Meet Director.

If due to such constraints, jump order is not maintained, then a complete round of any one discipline should be completed before moving on to further rounds, subject to any logistical changes, including manifest constraints, 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. (FAI Sporting Code, para 5.2.8.) If the reason is determined by the Meet Director not to be pertinent, the jump will score zero.

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 should be appointed by the Meet Director or 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), (or such a system as required by the organizers), 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 any 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. If instructed, 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 organiser should 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. **Re-jumps:**

- 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 re-jump 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 re-jump 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 re-jump 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 re-jump 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 (b) videographer in a team shall not be grounds for a re-jump.
- 4.5.3. Problems with a competitor's equipment (excluding freefall video equipment) shall not be grounds for a re-jump.
- 4.5.4. Adverse weather conditions during a jump are no grounds for protest. However, a re- jump may be granted at the discretion of the Chief Judge.
- 4.6. **Wind tunnels:** Competitors are not allowed to use a wind tunnel (freefall simulator) during the competition or until complete (but in the event of reserve weekend competitors may make use of wind tunnel between the original date and the reserve date.)

---

## 5. Rules specific to the event

---

### 5.1. Teams:

- 5.1.1. Teams may consist of members of either or both sexes. There is no gender separation. Team members are allowed to change their position within the team except where a pool videographer(s) is/are used. They must fly videographer slot ONLY.  
  
Teams requiring pool videographer should ensure request is made at the earliest opportunity prior to the start of the event. (It is normally expected that A Category teams will provide their own videographer)
- 5.1.2. Each team member may compete in more than one (1) category or event, subject to manifesting constraints and payment of any relevant fees.
- 5.1.3. a) Each team shall appoint a Team Captain.  
b) The Team Captains shall attend meetings called by the Meet Director for the purpose of obtaining competitor advice or opinion and for any draw, if applicable.



5.2. **Routines:** The discipline consists of compulsory routines and free routines.

5.2.1. **Compulsory Routine:** The compulsory routines consist of four (4) compulsory sequences (three (3) for Intermediate and B Category) 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.

5.2.1.1. Teams must submit the order of the Compulsory Sequences and their chosen Max Values if applicable (for both Compulsory Rounds) to the Chief Judge before the beginning of the competition. See Addendum D.

5.2.2. **Free Routine:** The content of the free routine(s) is chosen entirely by the team. However, teams competing in the B Category will not be scored for ANY head-down flying because the intention is to allow FF1 competitors to compete on a more level playing field. Teams competing in Intermediate Category will not be scored for any head-down flying of both performers at the same time to allow competitors to compete on a more level playing field.

5.2.2.1. Teams are requested to submit a written list of elements and/or present and explain their Free Routine to the judges panel before the start of the competition. See Addendum D. However, this is optional and failure to provide this information has no influence on the scoring.

5.3. **Number of rounds:**

Full Competition:

A Category 7 rounds

B Category 7 rounds

Minimum Competition: 1 round, 1 team

5.4. **Jump order of Routines:**

A Category F-C-F-F-C-F-F

B Category F-C-F-F-C-F-F

(C = Compulsory routine, F = Free routine)

5.5. **Tie Breaks:**

5.5.1. If two (2) or more teams have equal scores the following procedure will be applied:

i) The best score, then the second-best score, and then third-best score, of any completed free rounds.

ii) The best score, then the second-best score, of any completed compulsory rounds.

---

## 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**

B categories difficulty will be included in scoring and not scored before the start of the competition.

For scoring in A categories see FAI competition rules for Artistic Events.

**Difficulty:**

- Variety of orientations used (Head-up, Head-down, Belly-down, Back-down, Sideways, Diagonal, Angle, etc.)
- Variety of moves and styles (Carving, Eagles, Tricks, Acrobatics, etc.)
- The degree of difficulty of all moves and transitions (e.g., movements and spins in both directions, multiple simultaneous rotations, combined moves, etc.)
- Team Work: The ability to combine technical skills and create complex effects of movement, including the Videographer's involvement in the routine.
- See Addendum C.

During the competition, three (3) Judges determine Execution deductions, according to the following guidelines:

**Freestyle skydiving:**

Up to 2,0 points deduction	Overall routine: body position and control
Up to 1,0 point deduction	For each missing element (for example, single instead of double twist)
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 points deduction	For each instance, one or both Performers are off heading / off level / wobble
Up to 0,5 points deduction	Team work: Levels between the performers / synchronization between members (including camera) / proximity between performers (excluding camera)

Each of the three (3) Judges will total all their Execution deductions.

**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.*

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

Up to -4,0 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 (2) 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 (4) Compulsory Sequences relative to the Max Value of the Team's selected Compulsory Sequences using the following guidelines:

	Deduction: up to:	Explanation:	Example:
Set-up	10%	Facing the correct direction; In the correct body position. Camera in correct position.	Performance requirements described “at the beginning...” for orientation, body position, camera position, etc.

Major part of the compulsory	50%	The part that defines the sequence	The twist in the loop twist; Angle position; Split at the straddle spins etc.
Specific body position requirements	20%		Layout position
Execution mistakes	20%	Flow, Wobble, Off heading, Off center	
Specific Judging guidelines	See Addendum A	As specified for each compulsory	See Addendum A

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 three (3) total scores for the Execution deductions 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 Difficulty 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 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, excluding the lowest scoring Free Routine before Round 5.
- 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 all Artistic Discipline Judges must evaluate each team's performance. Where possible a complete round shall be judged by the same panel.  
The definition of "Judge" can include those under training. A panel of Judges cannot consist entirely of Judges who are under training.
- 6.5.2.1. Compulsory Routines: all Judges will evaluate the routines.
- 6.5.2.2. Free Routines: all 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. If provided, 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. If required, 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.

---

## **7. Determination of Danish Champions**

---

- 7.1. The Freestyle Skydiving Danish Champions and Freeflying Skydiving Danish Champions are the teams with the highest total score for all completed rounds. If two or more teams have equal scores, if time permits, the first three places will be determined by a tiebreak free round. If a tie still exists (or no tie break round is possible) comparison of the highest scoring free round will determine placing. If a tie still exists (or no tiebreak free round is possible), the next highest scoring free round will determine placing, which will continue until a clear placing is determined. Teams containing competitors who do not qualify for qualification as Danish Team members will only be eligible for the Open event, their scores, and therefore their team's scores and positions will not be counted in the determination of Danish results.

---

## **8. Final Decision**

---

- 8.1. These rules will take precedence at all times, however, if due to ambiguity or omission these rules are not deemed by the Chief Judge to be clear, the Chief Judge will refer to the FAI rules. If, then, no final conclusion can be reached from the FAI rules, the Chief Judge will refer the matter to the Meet Director whose decision will be final and binding.



## **ADDENDUM A1**

### **FREESTYLE SKYDIVING COMPULSORY SEQUENCES PERFORMANCE REQUIREMENTS & JUDGEMENT CRITERIA B Categories**

- The order in which these Compulsory Sequences can be performed is determined by the Team.
- Teams in all categories must submit the order of the Compulsory Sequences before the start of the competition to the Chief Judge.
- 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. Otherwise, the maximum possible score for the Compulsory Sequence is 70% of the MaxValue.

### **FREESTYLE B CATEGORY**

#### **FIRST COMPULSORY ROUND (ROUND 2)**

##### **FsB-1 Back Loop Sequence**

###### **Back layout loop:**

- Start must be from a layout position in a head up orientation
- Torso must be straight and legs in line with the torso without any bend at the waist
- One complete 360° back layout rotation must be performed
- Loop must be about a horizontal axis without tilting or changing direction
- Looping motion must be smooth
- Entry into the tuck back loops shall be smooth and without any stopping

###### **Tucked back loops:**

- Two complete back loops must be performed in a tuck position.
- The second back loop must end in a head up straddle pose

###### **Camera Requirements:**



- Camera must be on the same level and show the performer from his/her front at the start of the back layout rotation
- The same distance and level between performer and Videographer must be maintained

### **FsB-2 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.
- One (1) complete 360° cartwheel rotation in the straddle position must be performed.
- The cartwheel can rotate in either direction.

#### **Camera requirements:**

- Camera must show Performer from his/her front at the start and end of the compulsory sequence.
- The same distance and level between Performer and Videographer must be maintained during the sequence and camera must stay in place.

### **FsB-3 Head-Up Carving Sequence**

#### **Carve:**

- The Performer must start from a layout position in a head-up 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.

## **FREESTYLE B CATEGORY**

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

#### **FsB-4. Angle Flying with 360° Barrel Roll**

THIS COMPULSORY SEQUENCE MUST NOT BE THE FIRST ONE PERFORMED!

#### **Barrel Roll:**

- 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.



- 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.

#### **Camera requirements:**

- Videographer must show Performer from his/her side.
- The video image must show the horizon, with the sky in the upper portion of the frame throughout the sequence.

#### **Judging guidelines:**

- When this Compulsory Sequence is performed first in the compulsory routine, the maximum score will be three (3).

#### **FsB-5 Head Up Straddle Spins**

##### **Straddle position:**

- A Straddle position in head-up orientation must be demonstrated prior to starting the rotation and after the rotation.

##### **Spins:**

- Performer is in a straddle position, without any bend at the waist, in head-up orientation.
- Spins can be in either direction.
- The straddle must spin rapidly, with a minimum of two (2) pirouette rotations performed.

##### **Camera requirements:**

- At the beginning and the end, the Videographer must show the front of the Performer.
- Videographer must be on the same level throughout the sequence.

#### **FsB-6 Flip Through Sequence**

##### **Flip Through:**

- 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 an 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.

##### **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.

**END.**

---

## **ADDENDUM A2**

### **FREEFLY SKYDIVING COMPULSORY SEQUENCES PERFORMANCE REQUIREMENTS & JUDGEMENT CRITERIA B Categories**

- The order in which these Compulsory Sequences can be performed is determined by the Team.
- Teams in all categories must submit the order of the Compulsory Sequences before the start of the competition to the Chief Judge.
- 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.

### **FREEFLY B CATEGORY**

#### **FIRST COMPULSORY ROUND (ROUND 2)**

##### **FFB-1 Synchronized Front Loop**

- At the beginning, both Performers are side-by-side in a sit position, facing the camera.
- Performers must be unlinked at all times during the sequence.
- Both Performers simultaneously perform one (1) synchronized Front loop.
- Performers end up in original positions, maintaining level with each other during the front loop.



**Videographer** must show the front of the Performers at the beginning, on the same level, stay on level and remain in place.

### **FFB-2 Head-Up Grip Turns**

- At the beginning, both Performers are face-to-face in a head-up orientation (sit position 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 same grip.

**Videographer** must show the side of the Performers at the beginning, on the same level, stay on level and remain in place.

### **FFB-3 Head Up Carve**

- At the beginning, both Performers are face-to-face in a head-up orientation (sit position allowed).
- Both Performers start carving around an imaginary centre between them.
- Both Performers must carve 360°, ending where they began.
- The Performers must maintain the same distance from each other and remain facing one another during the sequence.

**Videographer** must show the side of the Performers at the beginning and end, stay on level and remain in place.

## **FREEFLY B CATEGORY**

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

#### **FFB-4. Cat Barrel Roll**

- 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** must show the side of the Performers at the beginning and end, stay on level and remain in place.

#### **FFB-5. Angle Flying**

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

When this Compulsory Sequence is performed first in the compulsory routine, the maximum score will be three (3).



- Both Performers are in an approximately 45° diagonal orientation with their heads low.
- At the beginning, both Performers are facing downwards (belly-to-earth), in a layout position, without any significant bend at the waist.
- Performers take a hand-to-hand grip (left-to-right hand or right-to-left hand).
- Performers fly in a forward direction, in an approximately 45° diagonal orientation with their heads low, maintaining hand grip.
- This angle flying must be maintained for a minimum of 3 seconds.

**Videographer** must show the Performers and the hand grip during the whole of the sequence, from above or below, whichever position they prefer.

### **FFB-6. Head-Up Full Eagle**

- At the beginning, both Performers are face-to-face in a head-up orientation (sit position allowed).
- One performer moves over the top of the other performer, who simultaneously moves under the other.
- As each performer passes under/over the other performer each performs a 180° turn. (Performers will have effectively swapped positions).
- After a momentary stop, each performer then repeats the sequence with the performer who moved over in the first move going under on the second move.
- Performers must move in a controlled manner and at the same time.

**Videographer** must show the side of the Performers at the beginning and end, stay on level and remain in place. (The performers will end in the same positions they started from.)

**END.**

---

## **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  $180^\circ$  (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  $180^\circ$  (if viewed from the side).
- If the legs are in a creative position, at least one thigh must show an angle greater than  $180^\circ$  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  $180^\circ$  (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  $180^\circ$  (if viewed from the side).
- For a Loose Pike, the angle between the front of the torso and the thighs is between  $90^\circ$  and  $180^\circ$  (if viewed from the side).
- For a Tight Pike, the angle between the front of the torso and the thighs is less than  $90^\circ$  (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  $90^\circ$  (if viewed from the side).
- The knees are bent, such that the angle between the upper and lower legs is less than  $90^\circ$ . 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  $90^\circ$  and  $180^\circ$  (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  $90^\circ$  and  $145^\circ$  (if viewed from the side).
- The knees are bent such that the angle between the upper and lower legs is between  $90^\circ$  and  $145^\circ$ .
- 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  $90^\circ$ .
- 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  $90^\circ$  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  $90^\circ$  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  $90^\circ$  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  $180^\circ$  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. 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 it 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:

<b>Freestyle</b>					
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	lot swapping/ rolls while background is	Cork screwing in sync with camera including

			moving	moving, side flying	tricks/rolls/spins; Side flying with tricks
Angle Head-Up					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:

<b>Freestyle Skydiving</b>				
<b>Very easy</b>	<b>Easy</b>	<b>Moderate</b>	<b>Difficult</b>	<b>Very difficult</b>
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, Siftly)	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 – B CATEGORIES

Teams are requested to deliver a description of their Free Routine(s) and the order of the Compulsory Sequences (for both Compulsory Rounds) using this proforma to the Chief Judge before the start of the official training jumps.

Team name		
Please indicate the event <i>(circle as appropriate)</i>	<b>FREESTYLE B</b>	<b>FREEFLY B</b>

First Compulsory Round: ROUND 2 <i>(FsB-1, FsB-2, FsB-3, or FFB-1, FFB-2, FFB-3)</i>			
Second Compulsory Round: ROUND 5 <i>(FsB-3, FsB-4, FsB-5, or FFB-4, FFB-5, FFB-6)</i>			

The Free Routine list of elements covers the following rounds <i>(circle as appropriate)</i>	<b>ALL</b> or <b>1</b> <b>3</b> <b>4</b> <b>6</b> <b>7</b>
--	--

	Name of move / sequence
1	
2	
3	
4	
5	
6	
7	
8	