



**PARACHUTIST**

**INFORMATION**

**MANUAL**

**PART 4B**

*COMPETITION RULES*

*Wingsuit Flying*

APRIL 2023

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## **ACKNOWLEDGEMENTS**

The CSPA Judging Committee has prepared the Competition Rules for Wingsuit Flying under the authority granted to it by the CSPA Board of Directors.

## LIST OF REVISIONS / CHANGES

<u>Date</u>	<u>Section</u>
April 2023	Revisions: Definitions, 3.2.1, 5.3.5, 5.3.6, 5.3.8, 5.4.3, 5.6.4, 6.3.1.1, 6.3.1.2, 7.1.1, 7.1.1.1, 7.1.2, 7.4.2, 8.5.1.1
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August 2017	Revisions: Section 3.3.3., 3.7.5., 4.3.1.
March 2017	Initial issue

## **CHAPTER 1 – CSPA AUTHORITY**

- 1.1 The Event will be conducted in accordance with PIM4B - Competition Rules – General Section and Wingsuit Flying plus PIM 4A - Canadian National Parachuting Championships Hosting Manual. All participants accept and agree to abide by PIM 4B, PIM 4A and all other relevant CSPA regulations upon registration for the CNPC.

## **CHAPTER 2 – DEFINITIONS OF WORDS AND PHRASES USED IN THESE RULES**

### **2.1 General Definitions:**

**POSITION LOGGING DEVICE (PLD):** A device used to record the real-time, three-dimensional (3D) position of the wingsuit flyer, which is mounted on the wingsuit flyer's body or equipment.

**SPHERICAL ERROR PROBABLE (SEP):** SEP is the radius of a sphere centered on the measured position which includes the true position with 50% confidence.

**GEOMETRIC ALTITUDE:** The height, as measured by a Global Navigation Satellite System, optical methods or radar, above ground level.

**ROUNDING:** Whenever rounding is referred to in these competition rules, half-way values of x are always rounded up. Example: 23.5 gets rounded to 24.

### **2.2 Performance Event:**

**COMPETITION WINDOW:** A vertical 1000-metre window, starting at 2500 m (8202ft) Geometric Altitude and ending at 1500 m (4921ft) Geometric Altitude, in which the performance of the wingsuit flyer is evaluated. The first crossing of the upper window boundary starts the evaluation process, which stops at the first crossing of the lower window boundary.

**VALIDATION WINDOW:** The validation window is the part of the jump which is used to determine the accuracy of the PLD data. The validation window begins 66ft (20m) above the competition window and ends 66 ft (20m) below the competition window.

**DZ ELEVATION:** The ground level for the competition site will be determined by the Meet Director and will be made known at the pre-event competitors' meeting.

**GROUND REFERENCE POINT:** The ground reference points will be determined by the Meet Director and will be published no later than the official arrival date using a detailed map or aerial photograph of the area no more than 30 days old.

**DESIGNATED FLIGHT PATH:** The straight ground track between a point on the competitor's flight path reached 10 seconds after exit and a designated ground reference point, which is given prior to the jump to the competitor by the Meet Director using a detailed map or aerial photograph of the area. The map and/or photograph must be acceptable to the Chief Judge.

**DESIGNATED LANE:** A lane which is centered on the Designated Flight Path with a width of 600 metres.

**RESULT:** The raw measured performance in a given task, as defined in 5.2.1., 5.2.2., and 5.2.3.

**SCORE:** The calculated percentage based on the top result for a given task, as determined in 5.8.1., 5.8.2., 5.8.3., and 5.8.4.

### **2.3 Acrobatic Event**

**ALTITUDE WINDOW:** The upper boundary of the Altitude Window is the altitude at which the vertical velocity of the Designated Team Member reaches 8 m/s after exit, as determined by the judges using the PLD, and the lower boundary of the Altitude Window is as designated in 6.3.3 or, if applicable, 6.3.5.

**DESIGNATED TEAM MEMBER:** The Designated Team Member (DTM) is the Team Member (see definition below) wearing the PLD. The DTM must be either Performer A or Performer B.

**COMPULSORY ROUTINE:** A routine composed of compulsory sequences chosen at random from Appendix A by the Chief Judge.

**COMPULSORY SEQUENCE:** A routine comprised of 2 or 4 manoeuvres, as described in Appendix A.

**FREE ROUTINE:** A routine composed of manoeuvres chosen entirely by the Team.

## BASIC ROTATIONAL ACTIONS

### (1) Barrel Roll

A barrel roll is a 360-degree rotation about the body head-toe axis, when that axis is aligned with the direction of flight. The rotation of a barrel roll may be performed in either direction (clockwise or anti-clockwise).

### (2) Back Loop

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

### (3) Front Loop

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

## GRIPS

(1) A hand grip consists of a controlled stationary contact with the front or back of the hand. The contact must be on or below the wrist.

(2) A foot grip consists of a controlled stationary contact with the front or back of the hand on the foot, below the ankle bone.

(3) A grip on the surface of any wingsuit without also achieving a controlled stationary contact with the front or back of the hand on a specified part of the body as defined in 1) and 2) above is specifically excluded from the definition of a grip.

**MANOEUVRE:** A change in body position or a rotation around one or more of the three (3) body axes or a static pose.

**NORMAL FLIGHT:** The performer is in a belly-to-earth stable position.

**NV:** No Video – no video image is available for judging purposes.

## OMISSION:

(1) a manoeuvre is missing from the drawn sequence or

(2) there is no clear intent to perform the chosen manoeuvre or

(3) an attempt at a grip is seen and another manoeuvre or grip is presented and there is an advantage to the team resulting from the substitution.

**ROUTINE:** Compulsory sequences or manoeuvres performed during the working time.

**TEAM:** An Acrobatic Wingsuit Flying Team is composed of two (2) Performers and a Videographer, all three of whom are Team Members

**WORKING TIME:** The period of time during which Teams may be evaluated and scored in accordance with 7.2 and which is defined in 6.3.3 and 6.3.5. Working time starts the instant any team member separates from the aircraft, as determined by a majority of the judges.



## **CHAPTER 3 – EQUIPMENT**

The following applies to both Performance and Acrobatic Wingsuit Flying

### **3.1. Position Logging Device (PLD)**

3.1.1. The PLD must record real-time three-dimensional (3D) data with a resolution of at least 5Hz and a position accuracy (SEP) of less than 10 metres.

3.1.2. The PLD must not require any action by the competitor in order for it to function, and it must activate its recording function automatically.

3.1.3. Once attached to the competitor, the settings on the device must not be capable of being altered by the competitor, nor must it be possible for the competitor to delete the data without this being easily evident to the Judges. Tampering with the device will lead to a result of zero for the jump. This decision is not grounds for protest.

3.1.4. The data recorded by the PLD must be downloaded and saved as soon as possible after the competitor has handed in the devices, and before the PLD is used again.

### **3.2. Equipment**

3.2.1. All competitors must wear a wingsuit for all competition jumps.

3.2.2. Competitors shall not use propulsion systems. If any propulsion system is used, the result will be zero for that jump.

3.2.3. A competitor shall not wear any other electronic device or wires closer than 2.54cm from the official PLD as measured by the judging staff. However, a second identical PLD unit may be worn without regard to this separation requirement. If any such electronic device affects the PLD system, and the source of the interference is not obvious and beyond the reasonable control of the jumper, a rejump may be granted by the Chief Judge, in which case 5.6.3 will not apply.

3.2.4. Each competitor must wear a functioning audio altitude warning device on every jump. Failure to do so will lead to a result of zero for that jump.

3.2.5. The PLD will be attached in its location by a Judge.

3.2.6. The PLD will be turned on and off by a Judge or by the competitor if instructed to do so by any Judge.

3.2.7. Immediately after landing, the competitor shall return the PLD used on that jump to a Judge.

3.2.8. If the PLD is found to have been tampered with and if in the opinion of a Judge this was not caused by circumstances beyond the control of the competitor, then no rejump will be awarded and the competitor will receive a result of zero for that jump. This decision shall not be grounds for a protest.

3.2.9. If the PLD malfunctions, and in the opinion of a Judge the malfunction was not caused by action or interference by the competitor, then the competitor will be given the option of making a rejump, in which case 4.6.3 will not apply, or receiving a result of zero for that jump.

## **CHAPTER 4 – GENERAL RULES**

### **4.1. Responsibilities of the Meet Director**

4.1.1. The Meet Director may delegate administrative duties and authority to others but may not relieve himself or herself of the responsibility of conducting the meet according to all applicable competition rules.

### **4.2. Time Between Events**

4.2.1. The Performance and Acrobatic events shall not be run concurrently.

4.2.1.1. Competitors must be released from one event before they can be put on standby for the other event.

4.2.1.2. The minimum time between the release from one event and first call for the other event shall be 60 minutes.

## **CHAPTER 5 – THE PERFORMANCE EVENT**

### **5.1. Objective**

5.1.1. The objective is to fly a single wingsuit in three separate tasks to demonstrate a combination of best lift (time task), best glide (distance task) and least drag (speed task).

5.1.2. Each round of the event is comprised of the three tasks.

5.1.3. Each task is performed on a separate flight.

### **5.2. Tasks**

5.2.1. Time Task: The wingsuit flyer is to fly with the slowest fall rate possible through the competition window. The result for this task will be the time spent in the competition window, expressed in seconds.

5.2.2. Distance Task: The wingsuit flyer is to fly as far as possible through the competition window. The result for this task will be the straight-line distance flown over the ground while in the competition window, expressed in metres.

5.2.3. Speed Task: The wingsuit flyer is to fly as fast as possible horizontally over the ground through the competition window. The result for this task will be the straight-line distance flown over the ground while in the competition window divided by the time spent in the competition window, expressed in kilometres per hour (km/h).

### **5.3. Program**

5.3.1. A competition shall consist of three rounds, with three tasks in each round, for a total of nine flights.

5.3.2. A task is considered valid when the Chief Judge has validated the results for that task.

5.3.3. A round is considered valid when it contains a valid Time, Distance, and Speed task.

5.3.4. A valid competition requires at least one valid task.

5.3.5. Maximum Exit Altitude: The maximum exit altitude for a valid jump is 11,000 ft (3353 metres) as measured by the approved competition PLD. A competitor should not exit the aircraft at a higher altitude than the maximum exit altitude. If the PLD registers an exit that is higher than the maximum exit altitude, the jump will be considered invalid and a rejump will be granted.

5.3.6 Minimum Exit Altitude: The minimum exit altitude for a valid jump is 10,500 ft. (3200 metres) as measured by the approved competition PLD. A competitor should not exit the aircraft at a lower altitude than the minimum altitude. If the PLD registers an exit that is lower than the minimum exit altitude, the competitor may choose to accept the score for the jump. The competitor must make an immediate decision and inform the Chief judge of their decision; otherwise, a rejump will be granted automatically.

5.3.7. For meteorological and/or Air Traffic Control reasons only, and with the consent of the Chief Judge, the Meet Director may lower the exit altitude to no lower than 3048m / 10,000ft Geometric Altitude and continue the competition. The Competition Window does not change; i.e. it stays 2500-1500m. If the exit altitude is lowered it must apply for a complete task for all competitors.

5.3.8. The order of tasks will be determined by a random draw conducted by the Chief Judge during the competitor briefing. This order may be changed by the Meet Director for meteorological or air traffic control reasons.

### **5.4. Jump Run and Exit Order**

5.4.1. The jump run should be perpendicular to the wind line upwind of the designated landing area, which is established by the Meet Director.

5.4.2. The starting order for the first task will be determined by the Meet Director, Chief Judge or Event Judge by a blind draw. The competitors shall jump consecutively in manifest order.

5.4.3. Reverse order of standing shall be recalculated at the completion of the first round and may be recalculated again at the completion of the second round at the discretion of the Meet Director. This order will determine the exit order for the following tasks.

5.4.4. At the discretion of the Meet Director a Flight Director may be placed aboard an aircraft larger than eight places to assist competitors with identification of ground reference points and landmarks.

Under no circumstances will such a Flight Director direct a competitor to exit. That decision is solely the responsibility of the competitor.

5.4.5. The number of competitors to exit on a single pass of the aircraft and the spacing of those exits will be determined by the Meet Director. The horizontal spacing must be no less than 600m. This will be expressed to the competitors as a time, in seconds, between exits. Immediately after exit, each competitor will turn directly towards his designated flight path.

5.4.6. Exit procedure: There are no limitations on the exit other than those imposed by the Chief Pilot for safety reasons. If a competitor exits in a manner deemed unsafe, the matter will be referred to the Safety Panel (PIM 4B, General Section, 4.8)

### **5.5. Flight Pattern**

5.5.1. The first exit point on an aircraft pass will be determined by the Meet Director. The aircraft pilot will signal the competitors when they are clear to exit. The “clear to exit” signal must be given at least 600 metres before the first Designated Lane. All the competitors will be briefed on the specific exit signals at the pre-event competitors’ meeting.

5.5.2. A competitor must not leave his Designated Lane (DL). Violation of this rule during the time period from 10.0 sec after exit to the exit of the competition window, as determined by the panel of judges, shall affect the result, as determined in 5.2 as follows:

- if less than 150 m outside the DL, a 10% reduction;
- if 150-300 m outside the DL, a 20% reduction;
- if during the time period from 10.0 seconds after exit to the deployment of the parachute, a competitor is more than 300 m outside the DL a 50% reduction for the first such infringement or a result of zero for any such infringement on a subsequent jump.

The distance referred to will be measured at right angles to the DL boundary

5.5.3 At no time from exit to opening shall competitor(s) come within 250m of any other competitor(s). Violation of this rule, as determined by the panel of judges, will lead to a result of zero for that jump. This decision shall not be grounds for protest.

5.5.4. Any violation of 5.5.2 or 5.5.3 that results in endangering other competitors shall be considered a serious endangerment and referred to the Safety Panel (PIM 4B, General Section, 4.8).

### **5.6. General Rules**

5.6.1. The deployment altitude for each competitor will be pre-determined by the Meet Director and must not exceed the lower boundary of the competition window (1500m/4921ft AGL).

5.6.2. Any violation of 4.6.1 that results in endangering other competitors shall be considered a serious endangerment and referred to the Safety Panel (PIM 4B, General Section, 4.8).

5.6.3. All jumps for each task of a round should be made from the same, or back-to-back loads, in order that competitors jump in similar winds.

5.6.4 Within the validation window every PLD data sample must satisfy precision criteria. Every data sample must have a Spherical Error Probable value of less than 10 metres. If the accuracy requirement of the PLD data is not met then a rejump will be awarded.

## **5.7. Equipment**

5.7.1. Competitors shall not carry additional or removable weight on their body or equipment. They must be weighed by the Event Judge, or a person appointed by the Event Judge for the purpose, at the start of the competition wearing all their normal jump equipment to establish a baseline weight. The Event Judge, or a person appointed by the Event Judge for the purpose, must conduct subsequent random weight checks, which may fluctuate from the baseline weight by no more than +/- 2kg before requiring an inspection. If the addition or removal of weight is detected, the result for that jump will be zero. This decision shall not be grounds for protest.

5.7.2. The same wingsuit, without any changes or modifications of its parts, must be used throughout the competition. In exceptional circumstances, a wingsuit may be changed with the consent of the Chief Judge, e.g., if the original suit gets damaged and cannot be made airworthy.

5.7.3. Wingsuits will be inspected and marked by a Judge. Only marked suits may be used for the competition. Using an unmarked suit will lead to a result of zero for that jump.

5.7.4. Each competitor shall wear one PLD provided by the Organiser and issued by a Judge. The device will be attached on the jumper's equipment with the antenna having a clear view of the sky, located and positioned to the satisfaction of the Judge. This decision shall not be grounds for protest.

## **5.8. Determination of the Winners**

5.8.1. Penalties arising from 5.5.3. and 5.5.4. will be applied to the result, as measured in 5.2., for each task in each round. The penalized result will be rounded to one decimal place for the time and speed task, and whole numbers for the distance task.

5.8.2. Each task in each round will be scored based on the top result of the task performed in that round, as determined in 5.8.1. The top result will be scored as 100%. The other results will be scored as a percentage of the top result. The score will be rounded to one decimal place for display purposes only, with the un-rounded score being used for further calculations.

5.8.3. The score calculated in 5.8.2 for all rounds for each separate task, will be averaged for each competitor to give an intermediate score for the task. The intermediate score will be rounded to one decimal place for display purposes only, with the un-rounded score being used for further calculations.

5.8.4. The three intermediate scores, as determined in 5.8.3., for each task for each competitor will be added and rounded to one decimal place to give the total score for the competitor.

5.8.5. The rounded total score will be used for display purposes and to determine ranking.

5.8.6. In the event of a tie in the first three places, the following tie-break rules apply.

- (1) A tie break jump will be made. The task shall be drawn at random by the Chief Judge.
- (2) If the tie cannot be broken by the tie break jump, the competitors concerned shall have equal placement.
- (3) Any other ties in the standings shall have equal placement.

5.8.7. Individual Task Champion: In each valid task – Time, Distance or Speed, the individual Champion of a task is the competitor with the highest aggregate score from all valid tasks in that particular task.

5.8.8. Overall Champion: The competitor with the highest aggregate score from all valid tasks. If there is less than one valid round, there will be no Overall Champion.

## **CHAPTER 6 – THE ACROBATIC EVENT**

### **6.1. Objective**

6.1.1. The objective is for a team to perform a sequence of manoeuvres.

6.1.2. There is no distinction as to gender.

### **6.2. Program**

6.2.1. The competition will consist of six rounds. The minimum number of rounds for a valid competition will be two (2) rounds.

6.2.2. The order of the routines shall be F-C-C-F-C-C (C = compulsory; F = free).

### **6.3. Exit Altitude and Working Time**

6.3.1. Unless otherwise specified in this section, the minimum exit altitude is 3658m/12,000ft. Geometric Altitude. The maximum exit altitude is 3810m/12,500ft Geometric Altitude.

6.3.1.1. If the PLD registers a lower exit altitude than the minimum exit altitude the team may choose to accept the score for the jump. The team must make an immediate decision and inform the Chief judge of their decision; otherwise, a rejump will be granted automatically.

6.3.1.2. For a free round, if the PLD registers a higher exit altitude than the maximum exit altitude, the team may choose to accept the score for the jump. The team must make an immediate decision and inform the Chief judge of their decision; otherwise, a rejump will be granted automatically.

6.3.1.3. For a compulsory round, exceeding the maximum exit altitude is not grounds for a rejump.

6.3.2. Working time is the time spent, measured in seconds rounded to the closest tenth (0.1) of a second, in the Altitude Window from the first crossing of the upper boundary by the DTM to the first crossing of the lower boundary by the DTM.

6.3.3. Unless otherwise specified in this section, the lower boundary of the Altitude Window will be 7500 vertical feet below the upper boundary.

6.3.4. For meteorological and/or Air Traffic Control reasons only, and with the consent of the Chief Judge, the Meet Director may lower the exit altitude to no lower than 3048m /10,000 ft. and continue the competition. However, if the exit altitude is lowered it must apply for a complete round for all teams.

6.3.5. If the exit altitude is lowered to 3505 m/11,500 ft AGL or less, the lower boundary of the Altitude Window will be 5000 vertical feet below the upper boundary.

### **6.4. General Rules**

6.4.1. The deployment altitude for each team will be pre-determined by the Meet Director in order to maximize team separation and may not exceed 5000ft AGL.

6.4.2. Competitors may change their role in the team from jump to jump; however, they may only perform one role (Performer A, Performer B, Videographer) during a jump

6.4.3. The performer (defined as Performer A, Performer B) who executes the first manoeuvre in each compulsory routine is defined as Performer A; this establishes the performer's role in the sequences (described in Appendix A) for the remainder of the routine

6.4.4. The jump order for the first round will be determined by the Meet Director, Chief Judge or Event Judge by a blind draw. Thereafter, the teams shall jump consecutively in manifest order.

6.4.5. Representation: Each participant may be a member of only one team.

## **6.5 Equipment**

6.5.1 The Designated Team Member (DTM) shall wear one PLD provide by the Organizer and issued by a Judge. The device will be attached on the DTM's equipment with the antenna having a clear view of the sky, located and positioned to the satisfaction of the Judge. This decision shall not be grounds for a protest.

## **6.6. Compulsory Routines**

6.6.1. A Compulsory Routine consists of three (3) Compulsory Sequences as described in Appendix A – Acrobatic Wingsuit Flying Compulsory Sequences.

6.6.2. The Compulsory sequences may be repeated until the end of working time.

6.6.3. The Compulsory Sequences to be used on each jump are determined via a random draw.

6.6.4. The draw of all compulsory round sequences will be done publicly and supervised by the Chief Judge. Teams will be given not less than two hours' knowledge of the results of the draw before the competition starts.

6.6.5. The sequences shown in Appendix A – Acrobatic Wingsuit Flying Compulsory Sequences will be individually placed in one container. Individual withdrawal from the container, (without replacement), will determine the sequences to be jumped in each round. A sequence, once drawn, will be put aside and may not be used again. However, if all available sequences have been used and the draw is not complete, the process will be re-started until the draw is complete.

6.6.6. The order of the compulsory sequences is determined by the order in which they are drawn.

6.6.7 After completion of the draw as determined in 6.6.5, the Chief Judge will determine whether a tie break jump will be a Free Round or Compulsory Round using the following procedure:

- (1) One Free Round and one Compulsory Round marker will be placed in one container. One marker will be drawn from the container in order to determine the type of tie break round.
- (2) If the tie break round determined in 6.6.7.1 is a Compulsory Round, the Sequences will be drawn in accordance with 6.6.5 and 6.6.6.

## **6.7. Free Routines**

6.7.1. The content of the Free Routine(s) is chosen entirely by the Team and may or may not include grips.

6.7.2. The Team may perform the same Free Routine in each Free Round.

## **6.8. Air-to-Air Video Recording**

6.8.1. For the purpose of these rules, "air-to-air video equipment" shall consist of the complete video system used to record the evidence of the team's performance, including camera(s), recording media, cables and battery. The air-to-air video equipment must be able to deliver a High Definition (HD 1080i / 1080p) digital signal through a compatible video connection approved by the Video Controller.

6.8.2. The videographer is responsible for assuring the compatibility of the air-to-air video equipment with the scoring system.

6.8.3. The camera must be fixed by a static mount to the helmet. No roll, pitch or yaw movements of the camera, 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 result in a score of zero (0) points.

6.8.4. A Video Controller will be appointed by the Chief Judge prior to the start of the judges' conference. The Video Controller may inspect a team's air-to-air video equipment to verify that it meets the performance requirements. Inspections may be made at any time during the competition which does not interfere with a team's performance, as determined by the Event Judge. If any air-to-air 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.

6.8.5. Video Review Panel (VRP). A VRP will be established prior to the start of the competition, consisting of the Chief Judge, the Meet Director and the Video Controller. Decisions rendered by the VRP shall be final and shall not be subject to protest or review by the Jury.

6.8.6. The Organizer shall provide the teams with a way of identification showing the team and round number, to be recorded by the videographer just before exit.

6.8.7. The team's video recording must continue from team/round identification through the exit and the jump without interruption. Failure to meet this requirement will result in a score of zero (0) points.

6.8.8. The videographer shall provide the video evidence required to judge each jump and to show the team's performance to relevant third parties. It is the responsibility of the videographer to show the exit of the Performers so that the start of working time may be clearly determined. If, in the opinion of the Panel of judges, the start of working time may not be clearly determined on the video, a penalty of 10% shall be deducted from the team's total score for that jump as determined in 7.2.8.2 and 7.2.8.3.

6.8.9. As soon as possible after each jump, the videographer must deliver the air-to-air video equipment for dubbing at the designated station. The video evidence must remain available for viewing or dubbing until all scores are posted as final.

### **6.9. Rejumps**

6.9.1. In a situation where the video evidence is considered insufficient for judging (NV – see 7.2.6.7) by a majority of the judging panel, the air-to-air video equipment will be handed directly to the VRP for assessment and a determination as follows:

6.9.2. If 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).

6.9.3. In the case the VRP determines the insufficiency of the video evidence 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.

6.9.4. If the VRP determines the insufficiency of the video evidence is due to weather conditions or a cause beyond the control of the team, a rejump will be given.

6.9.5. Contact or other means of inference between performer(s) and/or the videographer in a team shall not be grounds for a rejump.

6.9.6. Problems with a competitor's equipment (excluding air-to-air video equipment) shall not be grounds for a rejump.

6.9.7. Adverse weather conditions during a jump are not grounds for protest. However, in circumstances not covered by 6.9.1, a rejump may be granted due to adverse weather conditions, at the discretion of the Chief Judge.

### **6.10. Determination of Winners**

6.10.1. The winners (1st, 2nd and 3rd) are the teams with the three highest total scores for all completed rounds.

6.10.2. In the event of a tie in the first three places, a tie-break jump, as determined in 5.6.7 will be made.

6.10.3. If the tie cannot be broken by the tie-break jump, the following procedure will be applied until a clear placing is determined:

- (1) The best score, then the second-best score, of any completed free rounds.
- (2) The best score, then the second-best score, of any completed compulsory rounds.

6.10.4. All other ties in the standings shall have equal placement.



## **CHAPTER 7 – JUDGING AND SCORING**

### **7.1. Performance Event**

7.1.1. Each jump shall be imported into the official scoring system by a judge. This judge must be a CSPA rated Wingsuit Flying Judge.

7.1.1.1. Another judge, or training judge may assist with the importing of performance data.

7.1.2. Scoring will be supervised by at least two Wingsuit Judges.

7.1.3. Not used.

7.1.4 Scores (as defined in 5.8.2.), and any associated performance data, shall not be published until the task, which includes those scores, is complete.

### **7.2. Acrobatic Event**

7.2.1. Once any team member has left the aircraft, the jump shall be evaluated and scored.

7.2.2. The evaluation of each sequence will take place during the full working time but may cease before the end of working time if the team abandons the performance requirements for the required routine. Teams may continue scoring by continually repeating the sequences in the required order.

7.2.3. Judging procedures:

- (1) The jumps shall be judged using the video evidence as provided by the videographer.
- (2) A panel consisting of five (5) judges must evaluate each team's routine. Where possible, a complete round shall be judged by the same panel.
- (3) Judges may view the jump a maximum of three (3) times. A fourth viewing may be allowed at the discretion of the Event Judge.

7.2.4. All viewings must be at normal speed.

7.2.5. 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.

7.2.6. Scoring Compulsory Routines:

- (1) The Routine is evaluated using two (2) criteria: style and number of grips.
- (2) Judges give each of the above two criteria a score, based on the guidelines in Appendix B – Acrobatic Wingsuit Flying Judging Criteria.
- (3) For each manoeuvre omitted from the required order, as determined by a majority of the judges, 1.5 points will be deducted from the style point score otherwise given by each judge.
- (4) Where a manoeuvre is omitted, the grip associated with that manoeuvre will also be considered as being omitted and scored in accordance with 6.2.6(6).
- (5) One point will be assigned for each grip correctly performed in the routine within the working time of each round, as determined by a majority of the judges. The score given for grips shall be in whole integers only.
- (6) For each grip omission one (1) point will be deducted from the total determined in 7.2.6.5.
- (7) A majority of Judges must agree in order to determine an NV situation.
- (8) If, after the viewings are completed, and within fifteen seconds of the knowledge of the result, the Chief Judge, Event Judge or any Judge on the panel considers that an absolutely incorrect assessment of a grip has occurred, the Chief Judge or Event Judge will direct that only that part(s) of the jump in question be reviewed. If the review results in a four to one decision by the Judges on the part(s) of the performance in question, the assessment of that grip will be adjusted accordingly. Only one review is permitted for each jump.
- (9) The minimum score for any of the criteria is zero points.

#### 7.2.7. Scoring Free Routines:

- (1) The Routine is evaluated using three (3) criteria: style, dive plan and camerawork.
- (2) Judges will give each of the above three criteria a score based on the guidelines in Appendix B – Acrobatic Wingsuit Flying Judging Criteria.

#### 7.2.8. Score Calculation:

- (1) The team's score for a round for each of the criteria in 7.2.6 and 7.2.7 other than grips is calculated by discarding the high and low scores and averaging the three remaining scores, rounded to one decimal place.
- (2) For Free Rounds, the team's score for style, dive plan and camera as calculated in 7.2.8(1) will be weighted 100% and a zero score being weighted 0% (0). The team's total score for a round is then calculated by adding the three weighted percentage scores for that round.
- (3) For Compulsory rounds, the team's score for style, as calculated in 7.2.8(1), and for grips, as calculated in 7.2.6(5) and 7.2.6(6), will be weighted 0% to 150% for each criterion for all teams for that round, the highest score being weighted 150% (150) and a zero score being weighted 0% (0). The team's total score for a round is then calculated by adding the two weighted percentage scores for that round.
- (4) The team's final score for the event is the sum of the total scores from all completed rounds as calculated in 7.2.8(2) and 7.2.8(3).

7.2.9. All scores for each judge will be made public.

7.3. Not used.

#### 7.4. Other Judging responsibilities (Performance and Acrobatic)

- (1) At the request of the Chief Judge, one or more individuals, supervised by the Chief Judge (or trainees under the supervision of the Chief of Judge Training) must be provided by the organizer to support the judges in equipment, device and data management.
- (2) The Meet Director, or someone appointed by the Meet Director, must observe the competitors during their descent and on opening. The observer must check for any conditions or incidents that might constitute grounds for a re-jump and/or disqualification for safety reasons. A written record must be made of any unusual observations or incidents.
- (3) The Chief Judge and/or Meet Director may interrupt the event if they determine the meteorological conditions are not safe for the conduct of the event. This decision shall not be grounds for a protest.

## **CHAPTER 8 – RULES SPECIFIC TO THE COMPETITION**

### **8.1. Title of the Competition**

The Title of the Competition is: “ \_\_\_th Canadian National Parachuting Championships.

### **8.2. Aims of the Competition**

8.2.1. Not used.

8.2.2. To determine the National Champions (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>) of Wingsuit Performance Flying.

8.2.3. To determine the National Champions (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>) of Wingsuit Acrobatic Flying.

8.2.4. To promote and develop Wingsuit Flying training and competition.

8.2.5. To establish new Wingsuit Performance and Acrobatic Flying competition records.

8.2.6. To present a visually attractive image of the competition jumps and timely standings (scores) for competitors, spectators and media.

8.2.7. To exchange ideas and strengthen friendly relations between wingsuit flyers, judges, and support personnel of all nations.

8.2.8. To allow participants to share and exchange experience, knowledge and information.

8.2.9 To improve judging methods and practices.

### **8.3. Composition of Acrobatic Teams**

8.3.1. An Acrobatic Wingsuit Flying Team is composed of two (2) Performers and a Videographer, one of whom will be the Team Captain, who will be the only team spokesperson on matters pursuant to the CNPC, in regard to the actual competition.

### **8.4. Not Used.**

### **8.5. Prizes and Awards**

8.5.1. Performance Event

8.5.1.1. Medals will be awarded to:

- (1) Time Event: Champion: 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place
- (2) Distance Event: Champion: 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place
- (3) Speed Event: Champion: 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place
- (4) Overall: Champion: 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place

8.5.2. Acrobatic Event

8.5.2.1. Medals will be awarded to the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place teams.

### **8.6. Medals**

Gold, silver and bronze medals will be awarded to the first, second and third place winners in all valid events subject to the citizenship restrictions in PIM4B – General Section Competition Rules 2.1 and with the following exceptions:

- (a) where there are only three individuals or teams registered in an event, only gold and silver medals shall be awarded
- (b) where there are only two individuals or teams registered in an event, only the gold medal will be awarded.



## **APPENDIX A – ACROBATIC WINGSUIT FLYING COMPULSORY SEQUENCES**

- Compulsory sequences may be broken down into separate elements during execution, but will result in lower scoring on style.
- The last position of each Compulsory sequence leads into the beginning position of the next Compulsory sequence, and is counted as one grip.
- Performers are defined as Performer A and B.
- Other than for the first grip of the jump, a valid grip must be preceded by clear total separation, which is when the performers show at one point in time that they have released the grip and no part of their arms have contact with the other performer.

### **Sequence A: Up and Over**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A transitions over Performer B to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions over Performer A to the other side.
- Performers take a hand grip in normal flight.

### **Sequence B: Rock and Roll**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A performs a barrel roll.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B performs a barrel roll.
- Performers take a hand grip in normal flight.

### **Sequence C: Revolutions**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A transitions over Performer B to the other side and then transitions back under Performer B to the original starting position.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions over Performer A to the other side and then transitions back under Performer A to the original starting position.
- Performers take a hand grip in normal flight.

### **Sequence D: Roll Over**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A performs a barrel roll over Performer B to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B performs a barrel roll over Performer A to the other side.
- Performers take a hand grip in normal flight.

### **Sequence E: Duck and Roll**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A performs a barrel roll under Performer B to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B performs a barrel roll under Performer A to the other side.
- Performers take a hand grip in normal flight.

### **Sequence F: Déjà vu**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A transitions over Performer B to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer A transitions over Performer B back to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions over Performer A to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions over Performer A back to the other side.
- Performers take a hand grip in normal flight.

### **Sequence G: Yin Yang**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A transitions to inverted flight.
- Performers take a hand grip in mixed orientation.
- Performers show total separation and then Performer A transitions to normal flight.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions to inverted flight.
- Performers take a hand grip in mixed orientation.
- Performers show total separation and then Performer B transitions to normal flight.
- Performers take a hand grip in normal flight.

### **Sequence H: Back to Back**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then both transition to inverted flight.
- Performers take a hand grip in inverted flight.
- Performers show total separation and then both transition to normal flight.
- Performers take a hand grip in normal flight.

### **Sequence I: Pancakes**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A transitions to inverted flight over Performer B to the other side.
- Performers take a hand grip in mixed orientation.
- Performers show total separation and then Performer A transitions back to normal flight over Performer B to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions to inverted flight over Performer A to the other side.
- Performers take a hand grip in mixed orientation.
- Performers show total separation and then Performer B transitions to normal flight over Performer A to the other side.
- Performers take a hand grip in normal flight.

### **Sequence J: Reversed Pancakes**

- Performers are in normal flight with a hand grip.
- Performers show total separation and then Performer A transitions to inverted flight under Performer B to the other side.
- Performers take a hand grip in mixed orientation.
- Performers show total separation and then Performer A transitions to normal flight under Performer B to the other side.
- Performers take a hand grip in normal flight.
- Performers show total separation and then Performer B transitions to inverted flight under Performer A to the other side.
- Performers take a hand grip in mixed orientation.
- Performers show total separation and then Performer B transitions to normal flight under Performer A to the other side.
- Performers take a hand grip in normal flight.

### **Sequence K: Hand to Foot**

- Performers are in normal flight with a hand grip
- Performers show total separation.
- Performer A takes a foot grip in normal flight on the same side on Performer B
- Performers show total separation
- Performers take a hand grip in normal flight on the same side
- Performers show total separation
- Performer B takes a foot grip in normal flight on the same side on Performer A.
- Performers show total separation.
- Performers take a hand grip in normal flight on the same side

### **Sequence L: Reversed Hand to Foot**

- Performers are in normal flight with a hand grip
- Performers show total separation and Performer A transitions to inverted flight.
- Performer A takes a foot grip in inverted flight on the same side on Performer B.
- Performers show total separation and Performer A transitions to normal flight.
- Performers take a hand grip in normal flight on the same side
- Performers show total separation and Performer B transitions to inverted flight.
- Performer B takes a foot grip in inverted flight on the same side on Performer A.
- Performers show total separation and Performer B transitions to normal flight.
- Performers take a hand grip in normal flight on the same side

## **APPENDIX B – ACROBATIC WINGSUIT FLYING JUDGING CRITERIA**

### **B-1 Scoring Grips**

Grip scoring is only required for the Compulsory Routines.

- Each completed grip at the start of, during, and between each Compulsory manoeuvre will be added up to create a total number of grips.
- If multiple grips are taken during and between each Compulsory manoeuvre, only one grip will be counted.
- A grip that cannot be seen, or is considered not to meet the definition in Chapter 2 by a majority of the Judges will not be included in the total number of grips Compulsory Rounds have to be made in the correct sequence. A Compulsory manoeuvre omitted in the sequence will result in one point being subtracted from the total number of grips for that round. This result may not be less than zero.

### **B-2 Scoring Style**

Judges give a score for the Team (between 0 and 10 from 0.0 to no more than 10.0, up to one decimal point) for each of the four (4) Compulsory Rounds and two (2) Free Rounds, using the following guidelines:

10 points - Routine is performed flawlessly with no noticeable mistakes.

8 points - Routine is performed with small mistakes.

5 points - Routine is performed with medium mistakes.

3 points - Routine is performed with major mistakes.

0 points – Routine is not performed or identifiable

Examples of style:

- Flying Skills: Ability to manoeuvre smoothly or fly in any orientation (vertically, horizontally, back flying, etc.)
- Precision, control: Ability of the Team to demonstrate body control and smoothness of transitions. All movements made by the performers are precise and deliberate, without a lot of “nervous” movement in the arms, legs, and body or heading.
- Teamwork: The ability of the team to perform movements together to create a unified performance
- Body position: the performers’ posture should present clean and defined arm and leg position ideal for flight.
- Grips: each grip is made smoothly and fully in control.
- Leveling: the performer is adjusting fall rate and level accordingly during each manoeuvre,
- Proximity: the performers stay close together, never moving more than one body distance apart.
- Transitions: more complex manoeuvres are made according to the intended figures, rather than broken down into two or more simpler elements.

Small mistake examples:

- Manoeuvre: finish slightly off heading, slight wobble, etc.
- Manoeuvre: arms bent down or forward knees bent
- Manoeuvre: grips made resulting in tension and movement

Medium mistake examples:

- Manoeuvre: significantly off heading, wobble, not enough rotation, etc.
- Manoeuvre: grips made with considerable force, not fully in control

Major mistake examples:

- Manoeuvre: completely missing required elements of performed so poorly that manoeuvre is barely recognizable.
- Not generating forward movement (using aerodynamic properties of the Wingsuit).
- Manoeuvre: grips made with considerable force, resulting in out of control flying on one or both Performers.



### **B-3 Scoring Camera**

Judges give two (2) scores for camera work: one for Quality (between 0.0 and 7.0, up to one decimal point); and one for Progressive Work (between 0.0 and 3.0 up to one decimal point) for each of the two (2) Free Rounds, using the following guidelines, based on the worst mistake(s) judged in the camerawork:

#### Quality

- 6-7 points - Camerawork is flawless with no noticeable mistakes
- 4-6 points - Camerawork is performed with small mistakes.
- 2-5 points - Camerawork is performed with medium mistakes.
- 1-3 points - Camerawork is performed with large mistakes.
- 0-1 points - Camerawork shows no Performer manoeuvres.

#### Progressive Work

- 3 points – Routine is performed with a significant amount of successful progressive work.
- 2 points - Routine is performed with some successful progressive work.
- 1 point - Routine is performed with minimal successful progressive work.
- 0 points - Routine is performed with no progressive work.

Examples for good camerawork video quality:

- Video is smooth and does not bounce around.
- Performers occupy most of the video and remain centred
- Cameraman remains within a consistent distance of the Performers.

Examples for Progressive Work:

- Back flying
- Carving
- Multi-axis views
- Utilizes advanced flying techniques (i.e. Carving around the performers, back flying) resulting in creative angles without loss of framing or proximity.

Small mistake examples:

- Momentary loss of framing or focus, occasional minor distance errors, etc.

Medium mistake examples:

- Momentary loss of image, framing, focus, or distance errors for about 20 % or more of the Sequence, etc.

Major mistake examples:

- Contact with one or both performers
- Loss of control, resulting in lost framing of the performers or no video
- 50% or more of Routine cannot be judged. .

## **B-4 Scoring Dive Plan**

Dive plan scoring is only required for the free routine rounds. Judges give the following judging criteria a score, from 0.0 up to 10.0 to one decimal point, taking into account the following guidelines:

### Technical:

- Variety of moves: Performs several types of moves (using different orientations) within the Dive Plan.
- Difficulty: The degree of difficulty of all set sequences and transitions in the routine.
- Team Work: The amount and type of teamwork within the dive plan – constant interaction, showing combined skills of all Team Members, synchronization with the cameraman.
- Working time management: Ability to utilize working time and work the dive plan into the time allotted.
- Grip complexity, if present..

### Examples for Technical:

- The two (2) Performers maintain proper proximity throughout each sequence.
- All flying surfaces and/or flight angles are used (i.e. belly to earth and back flying, steeper angles)
- A constant interaction and teamwork is displayed.
- The routine shows a wide variety of set sequences that vary by complexity.
- Team separation after each set sequence.
- Grip complexity, if present.

### Presentation:

- Visual Excitement: Routine should hold the viewer's attention throughout,
- Dynamic variety, entertaining without being unnecessary.
- Originality: Creative choreography, interesting beginning and ending.

### Examples for Presentation:

- The routine has a defining beginning and end.
- Working time is utilized to the fullest extent possible.
- The routine has a high level of creativity that contains new manoeuvres, and flows from one set sequence to the next.
- The routine is enjoyable and aesthetically pleasing to watch.

# APPENDIX C – PERFORMANCE FLYING: DFP, DL, PENALTIES



