Chapter 10

U.S. National Canopy Formation Championships Competition Rules

United States Parachute Association®

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The competition will be conducted under the authority granted by the United States Parachute Association, according to the regulations of the Skydiver’s Competition Manual, as approved by the Board of Directors. All participants accept these rules and the USPA regulations as binding by registering in the competition.
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**APPENDIX A: CANOPY FORMATION DIVE POOL** ........................................................................ 8
1 **GENERAL**

- During descent under canopies, canopy formation teams perform a canopy formation or a sequence of canopy formations drawn from the dive pool as shown in this section.

2 **EVENT DESCRIPTION AND PERFORMANCE REQUIREMENTS**

2.1 **4-way Rotation**

2.1.1 Each round consists of successive 4-way stack-plane formations being made by rotation.

2.1.1.1 Rotations must be made by the top competitor in the complete formation dropping grips, flying to the bottom of the formation, and again completing a four-canopy formation.

2.1.1.2 The intermediate formation is the remaining, correctly completed 3-way stack-plane formation.

2.2 **4-Way Sequential**

2.2.1 Each round consists of a sequence of four or five scoring formations (whichever is first) drawn from the current dive pool.

2.3 **2-way Sequential Open and ProAm**

2.3.1 Each round consists of five formations from two sets of the six formations as shown in the dive pool.

3 **TEAM COMPOSITION**

3.1 **4-way**

3.1.1 Each team may consist of up to six members, including the team videographer, but only five may compete on a jump; the team is eliminated from competition if for any reason it is cut to three or fewer members and a videographer.

3.2 **2-way**

3.2.1 Each team may consist of up to four members, including the team videographer, but only three may compete on a jump; the team is eliminated from competition if for any reason it is cut to two or fewer members, including the videographer.

3.2.2 Only one flying competitor of a ProAm class team may have won a medal in CF at the nationals of any country. This rule does not apply to the videographer.

3.2.3 A competitor or videographer is allowed to compete on only one team in each of the events.

4 **COMPETITION DRAW**

4.1 **General**

4.1.1 The Chief Judge will supervise the draw of the formations.

4.1.2 Teams will be given no less than two hours between the draw and the start of the competition.

4.2 **Event Specific Draws**

4.2.1 **4-Way Sequential**

4.2.1.1 Each block sequence or random from the dive pool will be drawn only once for each competition.

4.2.1.2 Should the pool have insufficient lots to complete the draw, the drawn lots must be returned to the pool to enable the draw for the remaining rounds.

4.2.1.3 All rounds shall consist of four or five scoring formations, whichever number is reached first.

4.2.2 **2-Way Sequential (Open and ProAm)**
### CANOPY FORMATION

4.2.2.1 Each round consists of five formations from two sets of the six formations as shown in the dive pool.

4.2.2.2 After each sequence is drawn, the five formations shall be returned to the dive pool so that they may be drawn again.

4.2.3 When available, an electronically generated draw may be used.

### Order of Jumping

4.3.1 Teams are manifested and sent to the aircraft in the order drawn, but the exit order will be determined by meet management based on flight profile of the canopies or other pertinent conditions.

## 5 EXIT ALTITUDE AND WORKING TIME

### 5.1 4-Way Rotation

5.1.1 Each jump is made from 8,200 feet.

### 5.2 4-Way Sequential

5.2.1 Each jump is made from 9,000 feet.

### 5.3 2-Way Sequential

5.3.1 Each jump is made from 7,000 feet.

### 5.4 Higher descent rates

5.4.1 Any team whose descent rate puts them below 3,000 feet before working time expires must report this to the Meet Director before the start of that event.

5.4.1.1 Appropriate changes in exit altitude will be made at the Meet Director's discretion.

5.4.1.2 Any additional cost will be borne by the team.

### 5.5 Exit Procedures

5.5.1 There is no limitation on the exit other than those imposed by the chief pilot for safety reasons.

5.5.2 The pilot chute must not be withdrawn from the equipment until the competitor is clear of the aircraft.

5.5.3 The pilot must maintain the altitude and direction until well clear of the jumpers.

5.5.4 The exit of the first team member must be clearly shown on the team’s video recording. Failure to clearly show the exit of the first team member will result in a score of zero for that round.

5.5.5 Teams will be responsible for their own exit once the aircraft is on jump run.

### 5.6 Working Time

5.6.1 4-Way Sequential

- The working time begins at the moment of the first separation of a grip from the first formation, whether correct or not, or 30 seconds after the exit of the first team member (including the team’s videographer), whichever is first.
- Each sequence should be repeated until the working time of 120 seconds has expired.

5.6.2 2 Way Sequential

- The working time begins at the moment of the first separation of a grip from the first formation whether correct or not, or 30 seconds after exit of the first team member (including the team’s videographer), whichever is first.
- Each sequence should be repeated until the working time of 60 seconds has expired.
5.6.3 4-Way Rotation

- The working time begins at the moment of the first separation of a grip from the first formation, whether correct or not, or 30 seconds after exit of the first team member (including the team’s videographer), and ends 90 seconds later.

5.7 Break-off Procedures

5.7.1 All forms of canopy-formation activity must cease by 2,500 feet with all jumpers separated from one another (unless an emergency situation has occurred).

5.7.2 The Meet Director has the authority to disqualify for that round any team in breach of this rule.

5.8 Number of Rounds

5.8.1 The minimum number of rounds to constitute a meet in each event is one, and the maximum (scheduled) number is eight.

6 DEFINITIONS

6.1 General

6.1.1 Formation: two or more jumpers and canopies linked by grips, correct or not.

6.1.2 Grip: a hand hold or foot hook on the “A” lines or front riser so that a formation is built in accordance with the configurations as depicted in the dive pool.

6.1.3 Sequence: a series of blocks and random formations that are designated by the draw.

6.1.4 Inter: The stage between two formations. An inter must be flown and remain intact with the correct grips.

6.1.5 Omission: A formation or inter missing from the drawn sequence or no clear intent to build the correct formation or inter is seen, and another formation or inter is presented, and there is an advantage to the team resulting from the substitution.

6.1.6 NV: Formations, inters, or total separations not visible on screen due to meteorological conditions (like rain, clouds, sun, etc.) or factors relating to the videographer’s video equipment that cannot be controlled.

6.2 Configurations

6.2.1 The requirements for the configurations in this subsection only apply to complete formations.

6.2.2 Stack: The shoulders of the upper jumper must be above the upper surface of the lower canopy. The grip must be on an “A” line attached to the center cell.

6.2.3 Plane: The head of the upper jumper must be below the lower surface of the lower canopy. A grip must be on the front risers or an “A” line attached to the center cell.

6.2.4 Stairstep

6.2.4.1 The shoulder of the upper jumper must be above the upper surface of the lower canopy.

6.2.4.2 The grip must be on (or at a minimum, include) the outside “A” line of the end cell; it must be taken with the inside foot; it may include an additional handhold, if desired.

6.2.5 Plane/stack: A correct grip must be maintained on any position on the riser or line attached to the center cell between these configurations.

7 SCORING

7.1 General

7.1.1 Practice during competition

7.1.1.1 During competition, practice of formations or maneuvers other than those specified for that jump shall result in disqualification from the competition.
**Canopy Formation**

7.1.2 Canopy Formation cannot be practiced or scored using any reserve (auxiliary) parachute; to do so will result in disqualification for the remainder of the meet.

7.1.3 Showing performance

7.1.3.1 To be scored, all formations and inter requirements must be completed and recorded in such a manner that the judges may determine that the required performance has been achieved.

7.1.3.2 The team is responsible for providing video evidence for judging purposes.

7.1.4 Disqualification

7.1.4.1 If a competitor or team is disqualified for a jump, they will receive zero points for that jump.

7.2 4-Way Rotation

7.2.1 Teams will be awarded one point for the first correctly completed formation and every correctly completed 4-way plane/stack formation within the working time, according to the performance requirement.

7.3 4-Way Sequential

7.3.1 Teams are awarded one point for the first correctly completed formation in the drawn sequence and for each subsequent formation or formations preceded by an inter correctly completed within the working time.

7.3.2 Teams are not awarded points for incorrect formations, nor will there be any penalty.

7.3.3 Omission

7.3.3.1 For each omission of a formation in a round, the team will not score the point for the omitted formation, and an additional one point per omission will be deducted from that round as a penalty; if both the inter and the second formation in a block sequence are omitted, this will be considered as only one omission.

7.3.3.2 Scoring will be unaffected if the team goes back to correctly complete the omitted formation, incorrect formation, or formation prior to the incorrect inter requirement.

7.3.3.3 An attempt to complete a formation, although incorrect or incomplete, demonstrated by at least three canopies connected with grips or the two 2-way formations in an inter clearly attempting to build the formation required by the draw sequence, will be judged as an incorrect formation, not as an omission.

7.3.4 If the formation breaks up during the building sequence, the team may rebuild in any order.

7.3.5 Each formation and inter requirement must be performed in accordance with the drawn sequence.

7.3.5.1 Where there is no inter requirement between formations, there must be a release of all grips between all canopies at one point in time.

7.3.5.2 Mirror images are acceptable for complete blocks and random formations.

7.3.5.3 Formations need not be symmetrical.

7.3.5.4 At the end of a sequence there must be release of all grips before restarting the sequence as drawn.

7.4 2-Way Sequential

7.4.1 Teams will be awarded one point for the first correct formation and each subsequent, correct formation that is preceded by total separation within the working time.

7.4.2 Teams will not be awarded points for incomplete formations, nor will there be any penalty.

7.4.3 Omission

7.4.3.1 For each omission of a formation in a round, the team will not score the point for the omitted formation, and an additional two points per omission will be deducted from that round as a penalty; if both the inter and the second formation in a block sequence are omitted, this will be considered as only one omission.

7.4.3.2 Scoring will be unaffected if the team goes back to correctly complete the omitted formation or incorrect formation.
7.4.4 Each formation must be performed in accordance with the illustrations in the drawn sequence.
7.4.4.1 Jumper position for each random is set by the draw, i.e. the dark canopy position on the first formation built within a round must remain in the dark canopy position on all subsequent formations of that round.
7.4.4.2 There must be release of all grips between each formation.
7.4.4.3 No mirror formations are allowed.
7.4.4.4 All formations shall be performed as shown in the dive pool, as seen from behind.

7.5 Re-jumps
7.5.1 In the case of an NV:
7.5.1.1 The Video Review Panel will assess the conditions and circumstances surrounding that occurrence and may award a rejump.
7.5.1.2 Should the Video Review Panel determine that there has been an intentional abuse of the rules by the team, or by the videographer on behalf of the team, no rejump will be granted and they will receive zero points or maximum penalty for that jump.
7.5.1.3 Problems with a team’s equipment are not grounds for a rejump, except as determined in an NV situation and in §7.5.1.4.

In the event of an equipment malfunction, only one rejump may be granted per team, per competition event. This rejump will not be granted if the team builds a compete formation (correct or not) at any time during the jump.

Evidence of the malfunction must be provided by the team. The meet director in conjunction with the Chief Judge will assess the conditions and circumstances surrounding the occurrence. A rejump will be granted unless it is determined that there was an intentional abuse of the rules by the team; in which case, no rejump will be granted and the team’s score for that jump will be zero.

7.5.1.4 Contact or other means of interference between a team and its videographer are not grounds for the team to request a rejump.

7.6 Judging
7.6.1 Judges will use air-to-air video evidence as described in this section, normally using an electronic scoring system to record their evaluation of the performance.
7.6.2 The judges shall start timing when the first team member (including the team’s videographer) leaves the aircraft. The judges will watch the video evidence of each jump once at normal speed to determine points in time. If the first viewing has taken place and a clear decision has not been made as to when the working time begins, the Event Judge may guide the panel of judges as to when to start working time. At the end of working time, freeze frame will be applied on each full viewing. At the discretion of the Chief Judge or Event Judge, judges may then be allowed partial playback, slow motion, and multiple views to increase the quality and speed of the judging. If, during the judging cycle, the Chief Judge, Event Judge, or any judge on the panel considers that an absolute infringement has occurred, that infringement will be brought to the attention of the Event Judge to insure that it has been correctly scored by the majority of the panel judges.

7.6.2.1 If using scoresheets, Judges should record the following for each team: team number, round number, and score. All the score sheets must be collected immediately after the judges have scored the jump for checking by the Event Judge and Chief Judge.
7.6.2.2 Each judge must have a digital stopwatch accurate to one one-hundredth (.01) of a second.
7.6.2.3 The following symbols will be used to mark the score sheets:

- Correct Scoring Formation

O Incorrect or Incomplete Formation or Inter

X Omission

NV NV Situation

// End of Working Time

7.6.2.4 The results of the evaluation will be checked by at least one judge.

7.7 Aircraft

7.7.1 A variety or combination of aircraft may be used (determined by meet management) and must be announced in advance of the National Championships.

7.8 Weather

7.8.1 Maximum allowable wind speed is nine meters per second.

7.8.2 When air turbulence is apparent or clouds at lower altitudes affect visibility, the Meet Director may decide to raise the exit altitude to no higher than 10,000 feet. The Meet Director must inform all competitors. This decision is not open to protest.

7.8.3 Teams may refuse to jump in rain or turbulent conditions, but the Meet Director and Chief Judge by unanimous decision may decide to continue the event.

7.8.4 If a team aborts a jump a second time for the same reason, that team will not jump that round and is awarded the maximum or minimum score, whichever is worse.

7.8.5 Rain during a jump is not grounds for protest.

8 Classification of Final Results

8.1 4-Way Events

8.1.1 The result for each team is the total points obtained by the team during all completed competition rounds.

8.1.2 The winner is the team with the highest total score.

8.2 2-Way Event

8.2.1 The result for each team is the total points obtained by the team during all completed competition rounds.

8.2.2 The winner is the team with the highest total points.

8.3 Tie-breaking Method

8.3.1 If a tie occurs for a medal, a tie-break jump will be made. The team scoring the highest number of points on the tie-breaker jump during the completed rounds wins the tied place.

8.3.2 If a tie still occurs, the team scoring the highest number of points for a single jump during the completed rounds wins the tied place.

8.3.3 If a tie still occurs, the team scoring the fastest time (measured to hundredths of a second) to the last common scoring formation within working time in the last completed round wins the tied place.

8.4 Combined Canopy Formation

8.4.1 For each individual competing in all three Open Class events—

8.4.1.1 Points are awarded according to the individual’s team placement in each event.

8.4.1.2 The individuals with the lowest score are the winners.
8.5 National Championships Title Classifications

8.5.1 National 4-Way Rotation Champions—1st, 2nd, 3rd
8.5.2 National 4-Way Sequential Champions—1st, 2nd, 3rd
8.5.3 National 2-Way Sequential Open Champions—1st, 2nd, 3rd
8.5.4 National 2-Way Sequential ProAm Champions—1st, 2nd, 3rd
8.5.5 National Champions of Combined Canopy Formation
## 2-WAY RANDOM FORMATIONS

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4-WAY BLOCK SEQUENCES

1. SNAKE
   2. DIAMOND
   3. STAIRSTEP
   4. STEP STACK

   5. STACK
   6. DIAMOND
   7. DIAMOND
   8. SAWASDEE

   9. GATTON
   10. TWO STEP
   11. SNAKE
   12. TWO STEP

   13. INTER
   14. INTER
   15. INTER
   16. INTER

   17. STACK
   18. INTER
   19. INTER
   20. INTER

   21. VICHY
   22. DIAMOND
   23. HOOK

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4-WAY RANDOM FORMATIONS

A  STACK
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C  STAIRSTEP
D  SNACK
E  TWO STEP
F  STAIR STACK
G  BOOMERANG
H  STEP OFF
I  STEP STACK
J  GAFF
K  HOOK
L  SAWASDEE
M  DIAMOND
N  SNAKE