



**PARACHUTIST**

**INFORMATION**

**MANUAL**

**PART 4B**

*COMPETITION RULES*

*Formation Skydiving,  
Vertical Formation Skydiving,  
and 10-Way Speed*

MAY 2024

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## **ACKNOWLEDGEMENTS**

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

Prior to 2016, this manual was developed and prepared by the CSPA Competition and National Teams Committee.

## LIST OF REVISIONS / CHANGES

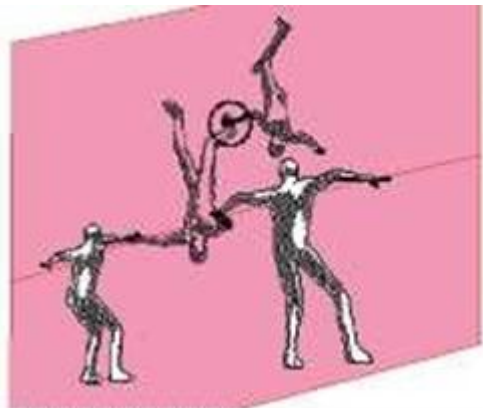
<u>Date</u>	<u>Section</u>
May 2024	Revisions: sections 2.15, 3.1.1, 3.1.2, 3.1.3, 3.1.4, 4.2.5, 4.2.6, 4.2.7, 4.6.2, 4.5 (entirely removed to General Section 5.2.6)
March 2023	Revisions: sections 2.2., 2.15., 3.15., 4.5.2., 5.2., 5.4., 8.6 (1), (2), (3), 8.8 (4), 8.9 (1), (2), (3) (3a), (3b), (4), 8.11, 8.11.1, Appendixes III, IV, V, VI and VII
March 2022	Revisions: sections 3.3.7., 5.4., Appendix I and II
April 2021	Revisions: section 5.3
April 2020	Revisions: sections 2.3.1., 2.17., 3.1.1., 3.1.4.2., 3.3.5., 3.3.6., Appendix II, Appendix III
May 2019	Revisions: sections 2.18., 3.1.5., Appendixes I, II, III, IV (all diagrams)
May 2018	Revisions: sections 3.2.2.1., 4.2.4., and 6.4.1.
June 2017	Revisions: sections 4.2.2., 4.2.3., 4.2.4., 4.2.5., 4.2.6., 4.2.7.
March 2017	Revisions: sections 2.3.1., 2.17.1., 2.17.2., 5.4., 6.4.1., 7.2., Appendixes (all diagrams)
December 2016	Minor revisions
October 2016	Formatting
July 2016	Full Revision
June 2013	
June 2011	

## **CHAPTER 1 – CSPA AUTHORITY**

The Event will be conducted in accordance with PIM4B - Competition Rules – General Section and Formation Skydiving (FS), Vertical Formation Skydiving (VFS) and 10-Way Speed 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. **FORMATION:** consists of competitors linked by grips and, for VFS, with each competitor in the correct orientation.
- 2.2. **GRIP:** consists of stationary contact between any part of the palm side of the hand and/or fingers, and **on** an arm, leg or foot of another competitor as shown in 7.2. For VFS, a foot grip consists of a handhold on a foot or ankle
- 2.3. **GRIP LINE:** This is the line linking the torsos of two competitors via their arms or legs and feet and the grip that joins them.
- 2.3.1. For VFS, Clarification regarding O) – There is an imaginary vertical plane passing through the handgrips, with outside competitors having hand grips on one side of the vertical plane and the competitor taking the leg grip on the other side of the vertical plane. No grip line may cross the vertical plane within the formation.



- 2.4. **BODY:** consists of the entire competitor and their equipment.
- 2.5. **DIVE POOL:** consists of the Random Formations and Block Sequences depicted in the appendix to these rules.
- 2.6. **SUBGROUP:** is the individual jumper, or competitors linked by grips, required to complete a designated manoeuvre during the inter of a block sequence. See 2.1 & 2.2
- 2.7. **A SUBGROUP'S CENTREPOINT:** is one of the following:
- (1) The defined grip or the geometric centre of the defined grips within a subgroup of "linked" competitors See 2.1 & 2.2
  - (2) The geometric centre of an individual's torso.
- 2.8. **TOTAL SEPARATION:** is when all competitors show at one point in time that they have released all their grips and no part of their arms have any contact with another body.
- 2.9. **INTER:** is an intermediate requirement within a block sequence which must be performed as depicted in the dive pools.
- 2.10. **SEQUENCE:** is a series of random formations and block sequences which are designated to be performed on a jump.
- 2.11. **SCORING FORMATION:** is a formation which is correctly completed and clearly presented either as a random formation or within a block sequence as depicted in the dive pool, and which for FS/VFS, apart from the first formation after exit, must be preceded by a correctly completed and clearly presented total separation or inter, as appropriate.
- 2.12. **INFRINGEMENT:** is one of the following:
- (1) An incorrect or incomplete formation which is followed within working time by either a total separation or an inter, whether correct or not.
  - (2) A correctly completed formation preceded by an incorrect inter or incorrect total separation.
  - (3) A formation, inter, or total separation not clearly presented.

2.13. OMISSION: is one of the following:

- (1) A formation or inter missing from the drawn sequence.
- (2) 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.

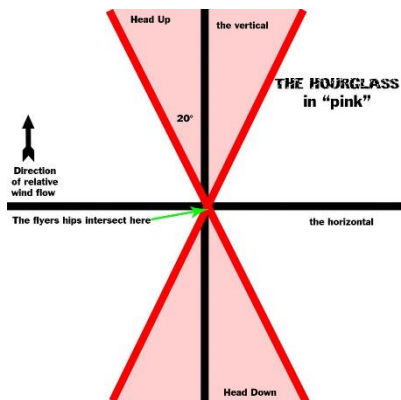
2.14. WORKING TIME: For FS/VFS working time is the period of time during which teams are scored on a jump which starts the first moment any competitor (other than the Videographer) separates from the aircraft, as determined by the Judges, and terminates a number of seconds later as specified in 3.1.

For 10-way Speed working time starts when the first competitor crosses the starting line and stops when the formation is properly completed. Refer to rule 8.6 for the complete details.

2.15. NV: Formations, inters, or total separations not visible on screen due to meteorological conditions (such as rain, clouds, sun, etc), or factors relating to the Videographer's video equipment that cannot be controlled.

2.16. JUDGEMENT CALL: An assessment by the judges of a formation, infringement or omission that is not unanimous.

2.17. ORIENTATION:



2.17.1. "The Vertical": An imaginary line running parallel to the relative wind (see diagram).

2.17.2. "The Horizontal": An imaginary line running perpendicular to the relative wind (see diagram)

2.17.3. "The flyer's Line": An imaginary, straight line of infinite length, roughly following the flyers spine, from the centre of the flyer's hips through the centre of the flyers head and beyond.

2.17.4. "The Hourglass": The acceptable range of deviation from The Vertical that a flyer's Line may take when meeting an orientation requirement (head up or head down). A flyer's orientation shall be judged with The Vertical and The Horizontal intersecting at the flyer's hips.

2.17.5 "Head up": The flyer's Line must fall within, and remain within, the upper portion of the Hourglass.

2.17.6 "Head down": The flyer's Line must fall within, and remain within, the lower portion of the Hourglass.

2.17.7. "Bellyflying" or "Belly to Earth" orientation requires that the competitor's torso is in a horizontal (prone) position, with the front of the torso toward the earth.

("Bellyflying" is not currently used in VFS formations).

2.17.8. "Backflying" orientation requires that the competitor's torso is in a horizontal (prone) position, with the back of the torso toward the earth.

("Backflying" is not currently used in VFS formations).

2.18. ZENITH: Point of the celestial sphere located vertically above the head of an observer.



## **CHAPTER 3 – THE FS/VFS EVENTS**

### **3.1. Event Descriptions**

The discipline will be comprised of the following events:

#### **3.1.1. 4-Way FS Events (Open, Female, Advanced, Intermediate and Beginner):**

- Exit altitude is minimum 3,200 meters /10,500 feet AGL.
- Working Time is 35 seconds.

#### **3.1.2. 4-Way VFS Event:**

- Exit altitude is minimum 3,960 meters / 13,000 feet AGL.
- Working Time is 35 seconds.

#### **3.1.3. 8-Way Event:**

- Exit altitude is minimum 3,960 meters / 13,000 feet AGL.
- Working Time is 50 seconds.

3.1.4. For meteorological reasons only, and with the consent of the Chief Judge, the Meet Director may lower (for any event) or raise (for 4-way FS events) the exit altitude and/or working time and continue the competition. In this case the following conditions will apply:

(1) The working time will be:

- 20 or 35 seconds for the 4-Way FS and VFS events, and
- 30 or 50 seconds for the 8-Way event

The reduced working time must be used if the exit altitude is lowered (ref 3.1.1, 3.1.2. and 3.1.3). The exit altitude and/or working time may only be changed for one or more whole rounds.

(2) The minimum exit altitude will be:

- 2,290 meters / 7,500 feet AGL for the 4-Way FS events,
- 2750 meters / 9,000 feet AGL for the 4-Way VFS event and the 8-Way event.

(3) The maximum exit altitude will be 3960 meters / 13000 feet AGL for all events.

3.1.5. Where possible the Meet Director will attempt to schedule VFS rounds at times when the sun is not within 20 degrees of the zenith to allow the team videographer to clearly video their team. Consideration should also be given to aircraft run in for all events to minimise sun interference on exit.

### **3.2. Objective of the Events**

3.2.1. The objective of the events is for the team to complete as many scoring formations as possible within the working time, while correctly following the sequence for the round.

3.2.2. The accumulated total of all rounds completed is used to determine the placing of teams.

- 4-Way: Three (3) rounds will constitute a valid event.
- 8-Way: Two (2) rounds will constitute a valid event.
- VFS: Two (2) rounds will constitute a valid event.

3.2.2.1 If two or more teams have equal scores, the following order of procedures will be applied for determination of the final placings:

- (1) one tie break round, if possible (for the first three placings only). The tie break round will be the next drawn round of the competition,
- (2) the highest score in any completed round,
- (3) the highest score starting with the last completed round and continuing in reverse order round by round, until the tie is broken,
- (4) the fastest time (measured to hundredths of a second) to the last common scoring formation in the last completed round.

### **3.3. Performance Requirements**

3.3.1. Each round consists of a sequence of formations depicted in the dive pools of the appropriate appendix, as determined by the draw.

3.3.2. It is the responsibility of the team to clearly present the start of working time, correct scoring formations, inters and total separations to the judges.

3.3.3. Scoring formations need not be perfectly symmetrical, but they must be performed in a controlled manner. Mirror images of random formations and whole block sequences are permitted. For VFS mirror images are only permitted when set in a vertical plane.

3.3.4. In sequences, total separation is required between block sequences, between random formations, and between block sequences and random formations.

3.3.5. Where degrees are shown, (180°, 270°, 360°, 540°), this indicates the approximate degrees and direction of turn required to complete the inter as intended. The degrees shown are approximately that amount of the circumference of the subgroup's centrepoint to be presented to the centrepoint(s) of the other subgroup(s).

For judging purposes, the approximate degrees and direction of turn of subgroups centrepoints will be assessed using only the two-dimensional video evidence as presented. Degrees of turn performed must be in a single direction.

3.3.6. Contact is allowed between different subgroups during the inter of a block sequence. If an inter requires an orientation change by a subgroup, no grip may be taken between that subgroup and any other subgroup during the orientation change.

3.3.7. Where subgroups are shown, they must remain intact as a subgroup with only the depicted grips on other jumpers in that subgroup. For VFS, where a subgroup is not required to change its orientation, the orientation must be maintained throughout the inter.

3.3.8. Assisting handholds on other bodies in a scoring formation are not permitted.

3.3.9. Handholds by the jumper on their own body within a subgroup or a scoring formation are permitted.

3.3.10. For VFS no grip line (ref. 2.3) may cross another grip line within a formation.

## **CHAPTER 4 – GENERAL RULES**

### **4.1. Composition of Teams**

Teams may consist of competitors of either or both sexes, except in the female event where (except for the videographer) all competitors must be female (see 6.3.5)

### **4.2. The Draw**

4.2.1. The draw of the 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.

4.2.2. Event Draws: The Random Formations (alphabetically marked and Block Sequences (numerically numbered) as shown in the appropriate Appendix and designated as required in 4.2.4, 4.2.5, 4.2.6 and 4.2.7 below (Dive Pool) will be singularly placed in one container. Individual withdrawal from the container, (without replacement) will determine the sequence and number of scoring formations (4.2.4, 4.2.5, 4.2.6 and 4.2.7) to be jumped in each round, subject to 4.2.3.

4.2.3. Use of Dive Pool: Each Block Sequence and Random Formation will initially be drawn only once until all scheduled rounds are complete or the designated Sequences and Formations all have been used. In the event that additional rounds are still to be drawn, the designated Blocks and Formations will be replaced in the container and the draw will continue as before.

In the event of a tie-breaking round, the Dive Pool to be used will consist of the Blocks and Formations which were not drawn for the scheduled rounds and remain in the container. In the event that these remaining Blocks and Formations do not complete the tie breaking round, the draw will continue from the entire original Dive Pool in that event, excluding any Blocks or Formations which have already been drawn for that tie-breaking round.

#### **4.2.4. Open 4-Way, Female 4-way, 8-way, and VFS Event Draw:**

All Random Formations and Block Sequences. Each round will be drawn so as to consist of five or six scoring formations, whichever number is reached first.

#### **4.2.5. Advanced 4-Way Event Draw:**

All Random Formations plus the following Block Sequences: 1, 2, 4, 6, 7, 8, 9, 11, 13, 14, 15, 18, 19, 20, 21, and 22. Each round will be drawn so as to consist of four or five scoring formations, whichever number is reached first.

#### **4.2.6. Intermediate 4-Way Event Draw:**

All Random Formations plus the following Block Sequences: 2, 4, 6, 7, 8, 9, 19, and 21. Each round will be drawn so as to consist of three or four scoring formations, whichever number is reached first.

#### **4.2.7. Beginner 4-Way Event Draw:**

Random Formations only. Each round will consist of three (3) scoring formations.

### **4.3. Use of Wind Tunnel**

Competitors are not allowed to use a wind tunnel (freefall simulator) after the draw has been made.

### **4.4. Jump Order**

4.4.1. The jump order for the first competition round of each event will be determined by the Meet Director, Chief Judge or Event Judge by a blind draw. The teams shall jump consecutively in manifest order.

#### **4.5. Video Transmission and Recording**

Details for video transmission and recording can be found in the General Section 5.2.6 as they are common across multiple disciplines.

#### **4.6. Exit Procedure**

4.6.1. There are no limitations on the exit other than those imposed by the Chief Pilot for safety reasons.

4.6.2. Teams will be responsible for their own exits once the aircraft has commenced jump run and the team has been cleared to exit.

#### **4.6.3. Exit Speed:**

The speed of the jump aircraft at the time of exit will be as follows:

- Twin Otter, King Air and Cessna Caravan - 80 to 90 knots indicated airspeed
- Other aircraft - as determined by meet management.

#### **4.7. Scoring**

4.7.1. A team will score one point for each scoring formation performed in the sequence within the allotted Working Time of each round. Teams may continue scoring by continually repeating the sequence.

4.7.2. For each omission three points will be deducted. If both the inter and the second formation in a block sequence are omitted, this will be considered as only one omission.

4.7.3. If an infringement in the scoring formation of a block sequence is carried into the inter (ref. 2.9.), this will be considered as one infringement only, provided that the intent of the inter requirements for the next formation is clearly presented and no other infringement occurs in the inter.

4.7.4. The minimum score for any round is zero points.

#### **4.8. Rejumps**

4.8.1. In a NV situation, the video evidence will be considered insufficient for judging purposes, and the Video Review Panel will assess the conditions and circumstances surrounding that occurrence. In this case, a re-jump will be given unless the Video Review Panel determines that there has been an intentional abuse of the rules by the team, in which case no re-jump will be granted and the team's score for that jump will be zero.

4.8.2. Contact or other means of interference between competitors in a team and/or their Videographer shall not be grounds for the team to request a re-jump.

4.8.3. Adverse weather conditions during a jump are no grounds for protest. However, a re-jump may be granted due to adverse weather conditions, at the discretion of the Chief Judge.

4.8.4. Problems with a competitor's equipment (excluding freefall video equipment) shall not be grounds for the team to request a re-jump.

#### **4.9. Practice Jumps**

Practice jumps may not be made after the draw has been made public. Refer to PIM4B Competition Rules – General Section, Chapter 5 – 5.2.1.

## **CHAPTER 5 – JUDGING**

### **5.1. Judging Procedure**

The competition jumps will be judged as the Videographer provides the video evidence. The Chief Judge may modify this procedure with the consent of the Meet Director.

### **5.2. Reverse Order of Placing**

The judging will, as far as practical circumstances allow (landings out, re-jumps etc.), be judged in the reverse order of placing. The Event Judge may vary this to attempt to ensure that teams receive their scores prior to performing their next rounds.

### **5.3. Number of Judges**

Five Judges must evaluate each team's performance. At the discretion of the Chief Judge, for operational purposes, the panel may be reduced to three judges.

### **5.4. Viewings/Review of the Video Evidence**

The Judges will watch the video evidence of each jump (1) one time at normal speed to determine points in time. The moment of freeze frame at the end of working time will be determined at the first viewing. If a judgement call occurs, a second viewing of the jump or part(s) of the jump will be conducted at normal or reduced speed between 50-90 percent of normal speed. At the request of the Event Judge a (3rd) third view of part(s) of the jump can be conducted at normal or reduced speed. The speed of the second- and third viewings (normal or reduced) will be determined by the Event Judge. The Chief Judge will decide prior to the start of each round the percentage of reduced speed to be used for the round. The freeze frame from the first viewing will be applied on each viewing.

5.4.1. 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 has occurred, the Chief Judge or Event Judge will direct that only that part(s) of the jump in question be reviewed at reduced speed in accordance with 5.4. If the review results in a minimum four to one judge decision by the Judges on the part(s) of the performance in question, the score for the jump will be adjusted accordingly. Only one review is permitted for each jump.

### **5.5. Evaluation**

The Judges will use the electronic scoring system to record their evaluation of the performance. 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. All individual judge's evaluations will be published.

### **5.6. Majority**

A majority of Judges must agree in the evaluation in order to;

- credit the scoring formation,
- or assign an omission,
- or determine an NV situation.

### **5.7. Start of the Working Time**

The chronometer will be operated by the Judges or by a person(s) appointed by the Chief Judge, and will be started as determined in 2.14. 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.

## **CHAPTER 6 – RULES SPECIFIC TO THE COMPETITION**

### **6.1. Title of the Competition**

Title of the Competition: “ \_\_\_ TH Canadian National Parachuting Championships.

### **6.2. Aims of the Competition**

To determine the National Champions of Formation Skydiving in the:

- 4-Way FS Event (Open, Female, Advanced, Intermediate and Beginner)
- 4-Way VFS Event,
- 8-Way Event,
- 10-Way Event

### **6.3. Composition of Teams**

- One (1) Team Captain and alternate captain (if desired). Each team, upon registration, will submit the name of the team captain and alternate captain (if desired), one of whom will be the only team spokesperson on matters pursuant to the CNPC, in regard to the actual competition.
- Alternate (s)
- Freefall videographers as in 6.3.5 and 6.3.6

#### **6.3.1. At a CNPC:**

- 4-Way FS teams consisting of up to: Five (5) 4-Way FS Competitors
- Female 4-Way FS teams consisting of up to: Five (5) female 4-Way FS Competitors
- 4-Way VFS teams consisting of up to: Five (5) 4-Way VFS Competitors
- 8-Way teams consisting of up to: Ten (10) 8-Way Competitors
- 10-Way Speed Teams consisting of up to Twelve (12) Competitors

#### **6.3.2. 4-Way Teams:**

The team will consist of four, 4-Way team members. The team may however, register five team members, no more than one of whom is registered with any other team, and any four of the five team members so registered may jump in any round of the competition, subject to 6.3.5 below. No other substitution is permitted. Any team that, for any reason, is permanently reduced to three or fewer team members will be eliminated from the event. In addition, the team will register a videographer and may register an alternate videographer. If any one of the team members wishes to change position with the team videographer, they may do so after consultation with the Chief Judge.

#### **6.3.3. 8-Way Teams:**

The team will consist of eight, 8-Way team members. The team may, however, register ten team members, no more than two of whom is registered with any other team, and any eight of the ten team members so registered may jump in any round of the competition, subject to 6.3.5 below. No other substitution is permitted. Any team that, for any reason, is permanently reduced to seven or fewer team members will be eliminated from the event. In addition, the team will register a videographer and may register an alternate videographer. If any one of the team members wishes to change position with the team videographer, they may do so after consultation with the Chief Judge.

#### **6.3.4. 10-Way Teams:**

The team will consist of ten, 10-Way team members. The team may register up to 12 members, including a videographer, but is eliminated from competition if, for any reason, it is reduced to nine or fewer members and a videographer.

6.3.5. No competitor may jump with more than one team during the same round. If any competitor is registered with more than one team in one event and has already jumped with one team and for any reason jumps with a second team during a subsequent round, that competitor must not jump again with the first team. In the event, a team is awarded a re-jump for a round and if a team member is injured and is unable to make the re-jump, then this provision will not apply to the re-jump, in that a registered member who has already jumped that round with another team may make the re-jump, in order to allow the team to complete the re-jump. The question of valid injury shall, be decided by the competition management - specifically, the Meet Director, Chief Judge, Meet Safety Officer and any medical doctor present.

#### 6.3.6. Videographers:

Must be entered for each team as part of the team; and therefore, will be considered one of the team's competitors.

- (1) 4-Way Open, Female, Advanced, 8-Way, and VFS Event teams may register an alternate videographer at initial registration or during the competition. This competitor is to be considered as a team member for the purposes of awards and medals.
- (2) 4-Way Intermediate and Beginner Teams may replace their videographer once at any time after the start of the event after informing the Event Judge of the change.

6.3.7. Videographers shall only be registered with one team. Alternate videographers may register with more than one team; however, sections 6.3.4 A and B as appropriate, shall apply to alternate videographers.

### **6.4. Program of Events**

6.4.1. The CNPC is comprised of Formation Skydiving Events:

- 4-Way: 10 rounds, all of which will be scored to determine the standings. Three (3) rounds will constitute a valid event.
- 8-Way: 6 rounds, all of which will be scored to determine the standings. Two (2) rounds will constitute a valid event.
- Vertical Formation Skydiving: 10 rounds, all of which will be scored to determine the standings. Three (3) rounds will constitute a valid event.
- 10-Way Speed: 4 rounds, all of which will be scored to determine the standings. Two (2) rounds will constitute a valid event.

6.4.2. Time must be reserved before the end of competition to allow for the completion of the tie break round.

6.4.3. Not Used

### **6.5. Declaration of Champions**

6.5.1. Medals are awarded as follows: All team members in the events will be awarded medals if placed First, Second or Third.

6.5.2. The 4-Way Formation Team whose total score is the highest will be declared the National 4-Way Formation Skydiving Champions in the category for which they are registered.

- (1) Open
- (2) Advanced
- (3) Intermediate
- (4) Beginner
- (5) Female

6.5.3. The 4-way Open category is the only category considered for becoming the Canadian National 4-way Open Team.

6.5.4. The Female Teams entered in the Open Event are eligible to be declared as Open Champions (6.5.2.1) as well as Female 4-way National Champions if there is not a separate Female category.

6.5.5. The 8-Way Formation Team whose total score is the highest will be declared the National 8-Way Formation Skydiving Champions.

6.5.6. The Vertical Formation Team whose total score is the highest will be declared the National Vertical Formation Skydiving Champions.

6.5.7. Advanced Teams are not eligible for the championships declared as per 6.5.3. However, if no open event is held, then the winning advanced team would be eligible as per 5.1.

6.5.8. The 10-Way Team scoring the lowest total time, compiled through all complete rounds, will be declared the National 10-Way Speed Champions.

### **6.6. Medals**

Gold, silver and bronze medals will be awarded to the first, second and third place winners (including properly registered alternate team member competitors) in all valid events subject to the citizenship restrictions in PIM4B Competition Rules – General Section 2.1 and with the following exceptions:

- a) where there are only three teams registered in an event, only gold and silver medals shall be awarded
- b) where there are only two teams registered in an event, only the gold medal will be awarded.
- c) When there is only one female 4-way team competing at the Open category level, the female team will be awarded medals as co-placement with the all-male/mixed gender teams if they chose to compete in the Open category because there are not any other female 4-way FS teams.

### **6.7. Videographer Medals**






In the Formation Skydiving events Videographers shall receive medals if they are the registered videographer of a medal winning team and film at least 70% of said team's jumps or are registered as an alternate competitor on a medal winning team subject to citizenship restrictions in PIM4B Competition Rules – General Section 4.4.1.




## CHAPTER 7 – DEFINITION OF SYMBOLS

### 7.1. Coding in the Dive Pool Annexes

Coding in the Dive Pool annexes is as follows:

<p>7.1.1 Indicates direction of turn by the subgroup</p>	
<p>7.1.2 Indicates turn by the subgroup in either direction</p>	
<p>7.1.3 Indicates turns by all subgroups</p>	
<p>7.1.4 a) Indicates clarification of intent VFS</p>	
<p>7.1.4 b) Indicates clarification of intent FS</p>	

### 7.2. Visualization for Grip Positions

<p>7.2 Visualization of Grip Positions ref. 2.2</p> <p style="text-align: right;">ARM:</p> <p style="text-align: right;">LEG:</p> <p style="text-align: right;">For VFS – FOOT:</p> <p>Note: A Foot grip is on or below the ankle</p>	
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## **CHAPTER 8 – 10-WAY SPEED**

The 10-way speed event will be conducted only after the 4-way and 8-way FS events and the VFS event are completed. The rules listed below shall govern the event. Where these rules are insufficient, reference shall be made to the FS rules.

### **8.1. Event Objective**

The objective is for the team, after correctly following the exit procedures, to complete a single 10 Way formation drawn from the dive pool and hold that formation for 5 seconds.

- (1) Mirror Images of random formations are permitted.

### **8.2. The Team**

Each team may consist of up to 12 members, including a videographer, but is eliminated from competition if, for any reason, it is reduced to nine or fewer members and a videographer.

### **8.3. Competition Draw**

The rounds shall be drawn as follows:

- (1) Representations of the lettered random formations (excluding the star) from the current dive pool are singularly placed in one container.
- (2) Individual withdrawal from the container, without replacement, determines the formation to be built on the first, third and fourth rounds.
- (3) The formation for the second round will be a star.

### **8.4. Number of Jumps**

The minimum number of rounds to constitute a valid event is two and the maximum (scheduled) is four.

### **8.5. Altitude**

Each jump will be made from 11,000 feet AGL

### **8.6. Working Time**

Working time starts when the first competitor (other than the videographer) crosses the starting line and stops when the required formation is completed. The maximum working time allowed is 35.00 seconds.

- (1) If no clear exit is shown, the team will be assessed the maximum score of 35 seconds.
- (2) Each formation must be completed within 35 seconds and held for a minimum of five seconds.
- (3) Total working time is 40 seconds.

### **8.7. Reduced Altitude**

For meteorological reasons only and with the consent of the Chief Judge, the Meet Director may lower the exit altitude. If a round cannot be completed from the altitude specified in 3.5:

- (1) The teams that have not jumped will finish the round from the lower altitude.
- (2) The teams that have already jumped in this round will be re-scored using the reduced working time;
- (3) In this case: the exit altitude is lowered to 8,000 feet and the maximum working time is 20.00 seconds.

## **8.8. Exit Procedures**

- (1) A starting line is marked on the floor of a side-door aircraft from the front edge of the door to the opposite fuselage wall aft of the rear edge of the door, and for tailgate aircraft, the line is drawn five feet forward of the tailgate edge and parallel to the edge of the tailgate.
- (2) The team must line up behind the starting line, and no members of the team, except the videographer, may come in contact with any portion of the aircraft on the door side or tailgate side of the line prior to commencing exit. The videographer is the only person allowed on the door side of the line.
- (3) The videographer must record an image, which includes the starting line on the floor and the instant of the first member or members of the team crossing the line at the commencement of the exit from the aircraft.
- (4) Each team member other than the videographer must present individual separation at some point after exiting the plane and before the formation is completed.
- (5) Any other team(s) in the aircraft must not interfere with the exiting team. Any interference by another team affecting the performance of the exiting team will result in a 5 second penalty.

## **8.9. Scoring**

- (1) Each team receives a score (in seconds) for the completed 10-way formation that is held for a minimum five (5) seconds.
- (2) These five (5) seconds must fall within working time (ie: the last grip must be completed within 35 seconds)
- (3) The score for each jump is computed by averaging the 3 scores to 1/ 100 (.01) of a second.
  - a) If two judges agree that the exit procedures and formation criteria have been met and that the 10-way completion time is 35.00 seconds or less, the score is the average of the two judges' time.
  - b) If at least two judges agree that the exit procedures and formation criteria have not been met (per 8.10), the team will receive the maximum score of 35.00 seconds
- (4) It is the responsibility of the team to clearly present the correct scoring formation.

## **8.10. Maximum Score**

A team will receive the maximum score of 40.00 seconds (or 25 seconds if the exit altitude is reduced) if:

- (1) It does not complete the correct 10-Way formation;
- (2) It fails to clearly present the formation;
- (3) The video image fails to record an image of the line so that the judges can see the exact moment of the first team member or members crossing the line;
- (4) Total separation prior to building the formation is not shown;
- (5) There is contact with any portion of the aircraft on the door side of the exit line prior to commencing exit;
- (6) The completed formation is not held for 5.00 seconds or
- (7) The formation is not completed within 35.00 seconds

## **8.11. Judging Procedures**

The Event will be evaluated by three judges. The judges will watch each jump no more than three times at normal speed. The judges will watch the jump once to determine that the exit procedures have been met and confirm a 10-way formation has been completed. Following the first viewing, the judges may confer with each other to determine the instant of exit, to confirm that there is total separation between team members, and to determine the completion (or not) of a 10-way formation. The second and third viewings will be to determine the completion time for the 10-way formation; determine whether the 10-way formation is correct or not and confirm the formation was held for 5 seconds.

### **8.11.1 Manual Judging Procedure:**

Three Judges will watch the jump on suitable video playback equipment and will record their evaluation on their own score sheets. The judges will watch each no more than three times at normal speed. The judges will watch the jump once to determine that the exit procedures have been met and confirm a 10-way formation has been completed. Following the first viewing, the judges may confer with each other to determine the instant of exit, there is total separation between team members and to determine the completion (or

not) of a 10-way formation. The second and third viewings will be to determine the completion time for the 10-way formation; determine whether the 10-way formation is correct or not and confirm the formation was held for 5 seconds.

The watches used to determine working time will be started when any team member (other than the videographer) crosses the starting line with any part of their body and must be capable of reading to the nearest 1/100th of a second. The judges will record the time of completion of the 10-way formation and the time the first team member breaks from the formation in order to determine if the required holding time of 5.00 seconds has been achieved.

### **8.12. Practice Jumps**

Practice jumps will be available at the site for some period of time during the week prior to the CNPC and prior to the close of registration. Practice jumps may not be made after the draw has been made public. Refer to PIM4B Competition Rules – General Section, Chapter 5 – 5.2.1

### **8.13. Determination of Winners**

The winner is the team scoring the lowest total time, compiled through all complete rounds. In the event of a tie score in first, second or third place, the following order of procedures will be applied until the first three placings are determined:

- (1) a jump-off round, however, no more than two such tie breaking jumps shall be made;
- (2) fastest score in any completed round;
- (3) fastest score starting with the last completed round and continuing in reverse order, round by round, until the tie is broken.

## **APPENDIX AA – FS/VFS MANUAL JUDGING AND SCORING**

AA.1. Manual Judging and Scoring: If an electronic scoring system is not available:

AA.2. Five Judges will watch the jump on suitable video playback equipment and will record their evaluation on their own score sheets.

The judges will watch each jump to a maximum of three times. The first time will be at normal speed to determine the number of points in time. At the request of at least two judges, if a judgment call occurs, a second viewing of the jump will be conducted at normal or reduced speed between 70-90 percent of normal speed. A third (3rd) view of parts(s) of the jump can be conducted at normal or reduced speed. The speed of the second and third viewings (normal or reduced) will be determined by the Event Judge. The Event Judge will decide prior to the start of the Competition the percentage of reduced speed to be used for the different Events. The freeze frame from the first viewing will be applied on each viewing. The necessity for determining points in time will take precedence over reduced speed viewing.

AA.3. The Event Judge will appoint a person to call the last few seconds of working time, in order to assist the judges to determine working time expiry.

AA.4. If judges cannot determine the start of working time, the following procedure will be applied: 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.

AA.5. Infringement marks will be assigned to the respective formation, if it has been penalized by a majority of judges observing the jump.

AA.6. Evaluation review: If after the viewings are completed, and within fifteen seconds of the knowledge of the result, the Event Judge considers that an absolutely incorrect assessment has occurred, the Event Judge will direct that only that part(s) of the jump in question be reviewed. If the review results in a unanimous decision by the Judges on the part(s) in question, the score for the jump will be adjusted accordingly. A panel judge, convinced of an absolute infringement, should indicate discretely to the EJ that a review may be required. If a majority of judges have applied infringement marks to the formation no review will take place.

AA.7. The working time will be considered to have been properly recorded if the double vertical time line is drawn on the score sheet, even if no watch time or other remarks are written down.

AA.8. The watch used to determine working time will be started on exit of the first jumper from the aircraft and must be capable of reading to the nearest 1/100th of a second.

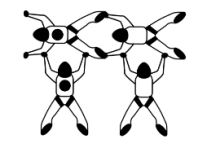

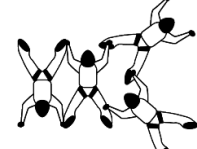
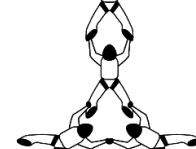
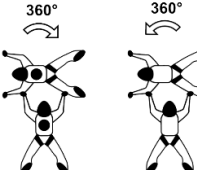
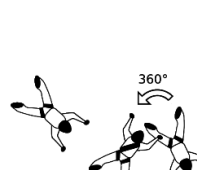
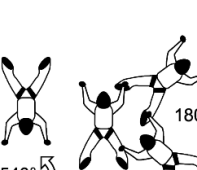
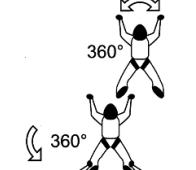
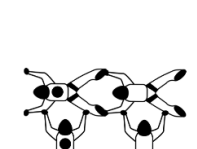


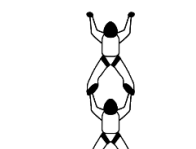
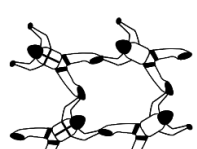
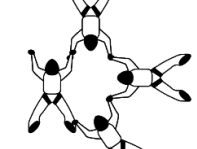
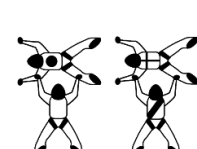
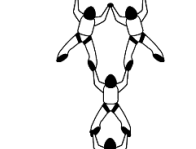
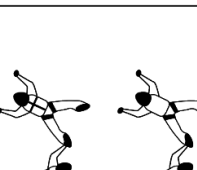
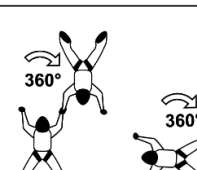
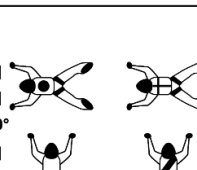
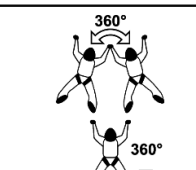
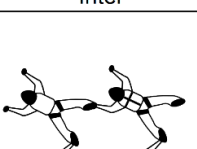
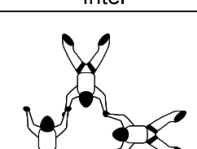
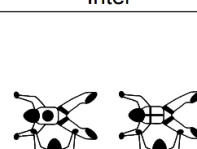
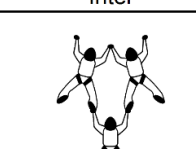
AA.9. A re-jump will be made at the earliest possible time, if either of the following occurs:

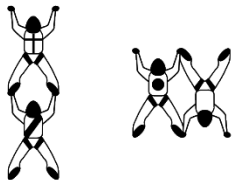
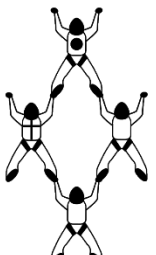
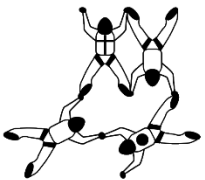
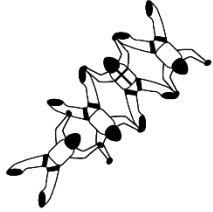
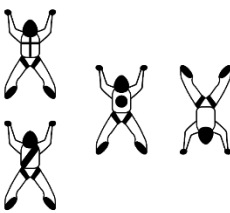
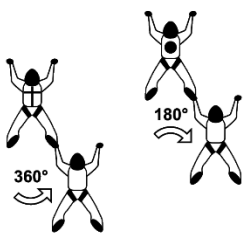
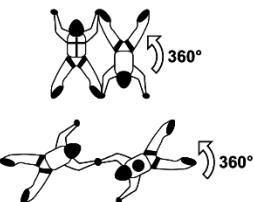
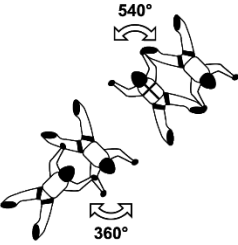
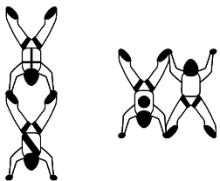
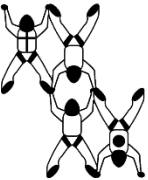
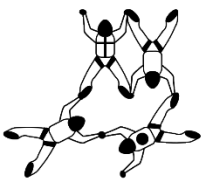
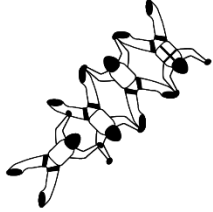
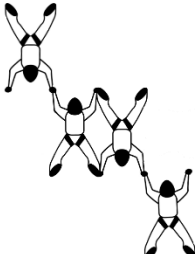
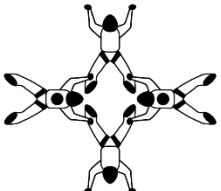
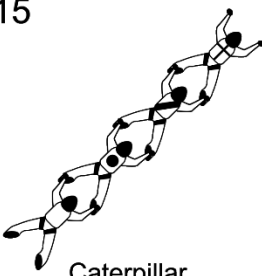
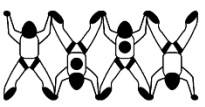
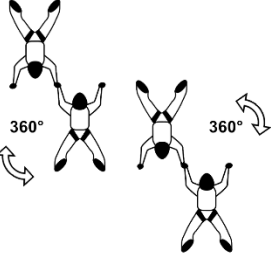
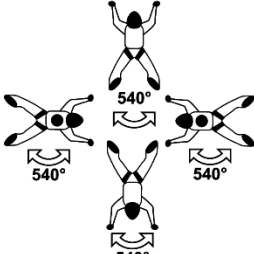
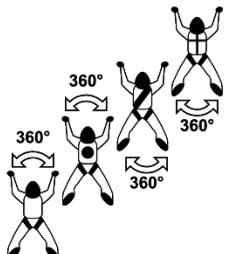
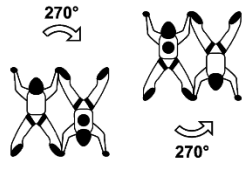
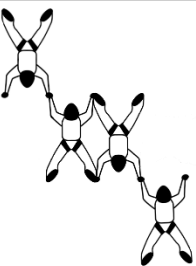
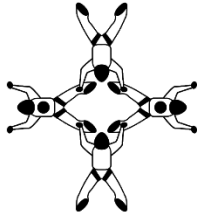
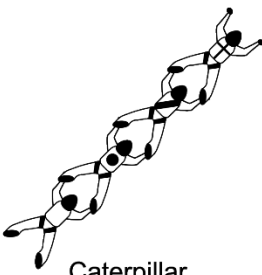
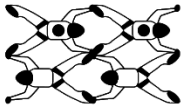
- (1) less than four judges have evaluated the jump;
- (2) less than three judges have recorded a working time.

AA.10. The signs to be used on the score sheet are:

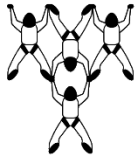
- Correct Scoring Formation (Formation, intermediate OK): /
- Infringement; (Formation, intermediate NOT OK) O
- Omission X
- Formations, Inters or total separations not visible on screen due to meteorological conditions or factors relating to the videographer's equipment that cannot be controlled. NV
- No clear start or end to working time NT
- End of Working Time //

## APPENDIX I – 4-WAY FS BLOCK POOL

1	2	3	4
 <p>Molar</p>	 <p>Sidebody Donut</p>	 <p>Side Flake Opal</p>	 <p>Monopod</p>
 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>
 <p>Molar</p>	 <p>Side Flake Donut</p>	 <p>Turf</p>	 <p>Monopod</p>
5	6	7	8
 <p>Opal</p>	 <p>Stardian</p>	 <p>Sidebuddies</p>	 <p>Canadian Tee</p>
 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>
 <p>Opal</p>	 <p>Stardian</p>	 <p>Sidebuddies</p>	 <p>Canadian Tee</p>

<p>9</p>  <p>Cat+Accordian</p>	<p>10</p>  <p>Diamond</p>	<p>11</p>  <p>Photon</p>	<p>12</p>  <p>Bundy</p>
 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>
 <p>Cat+Accordian</p>	 <p>Bunyip</p>	 <p>Photon</p>	 <p>Bundy</p>
<p>13</p>  <p>Mixed Accordian</p>	<p>14</p>  <p>Bipole</p>	<p>15</p>  <p>Caterpillar</p>	<p>16</p>  <p>Compressed</p>
 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>	 <p>Inter</p>
 <p>Mixed Accordian</p>	 <p>Bipole</p>	 <p>Caterpillar</p>	 <p>Box</p>

17



Danish Tee

18



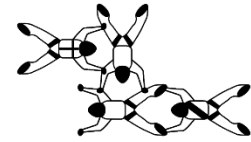
Zircon

19

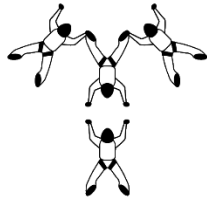


Ritz

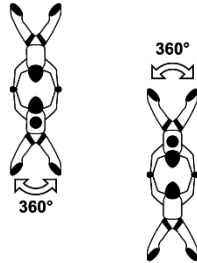
20



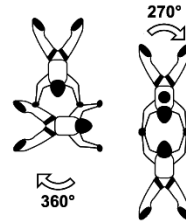
Piver



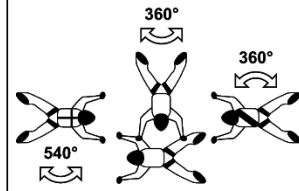
Inter



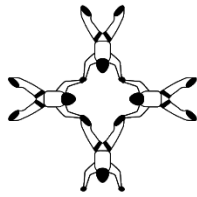
Inter



Inter



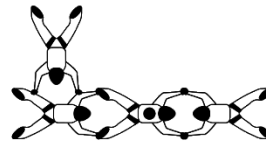
Inter



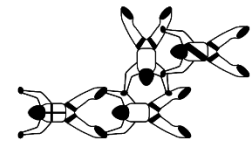
Murphy



Zircon

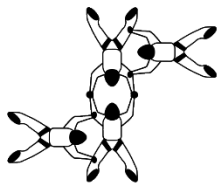


Icepick



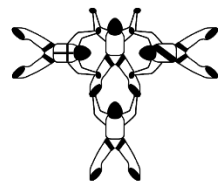
Viper

21

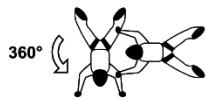


Zig Zag

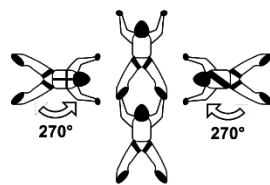
22



Tee



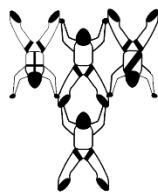
Inter



Inter



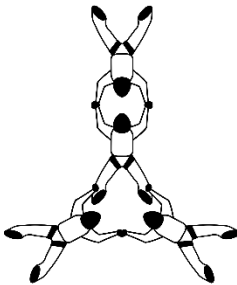
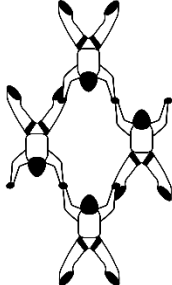
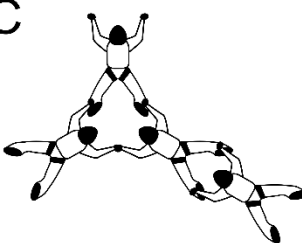
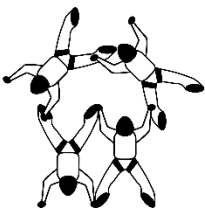
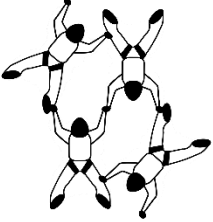
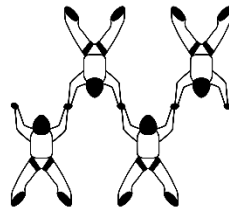
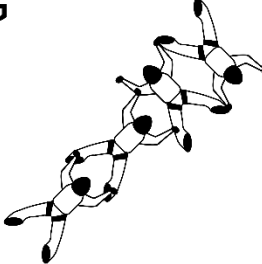
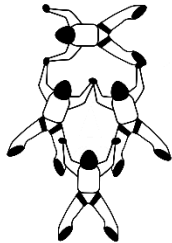
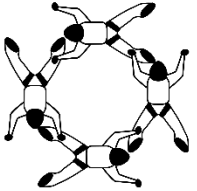
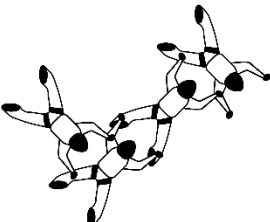
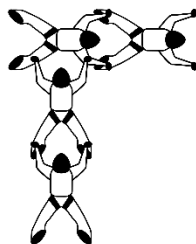
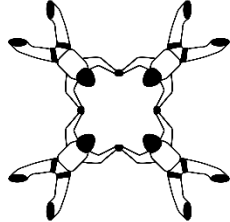
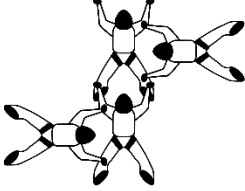
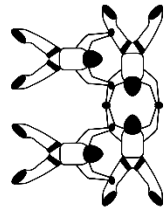
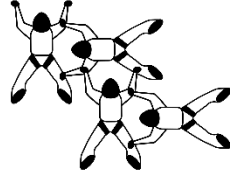
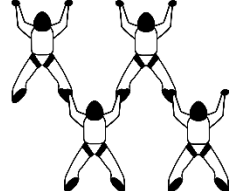
Marquis



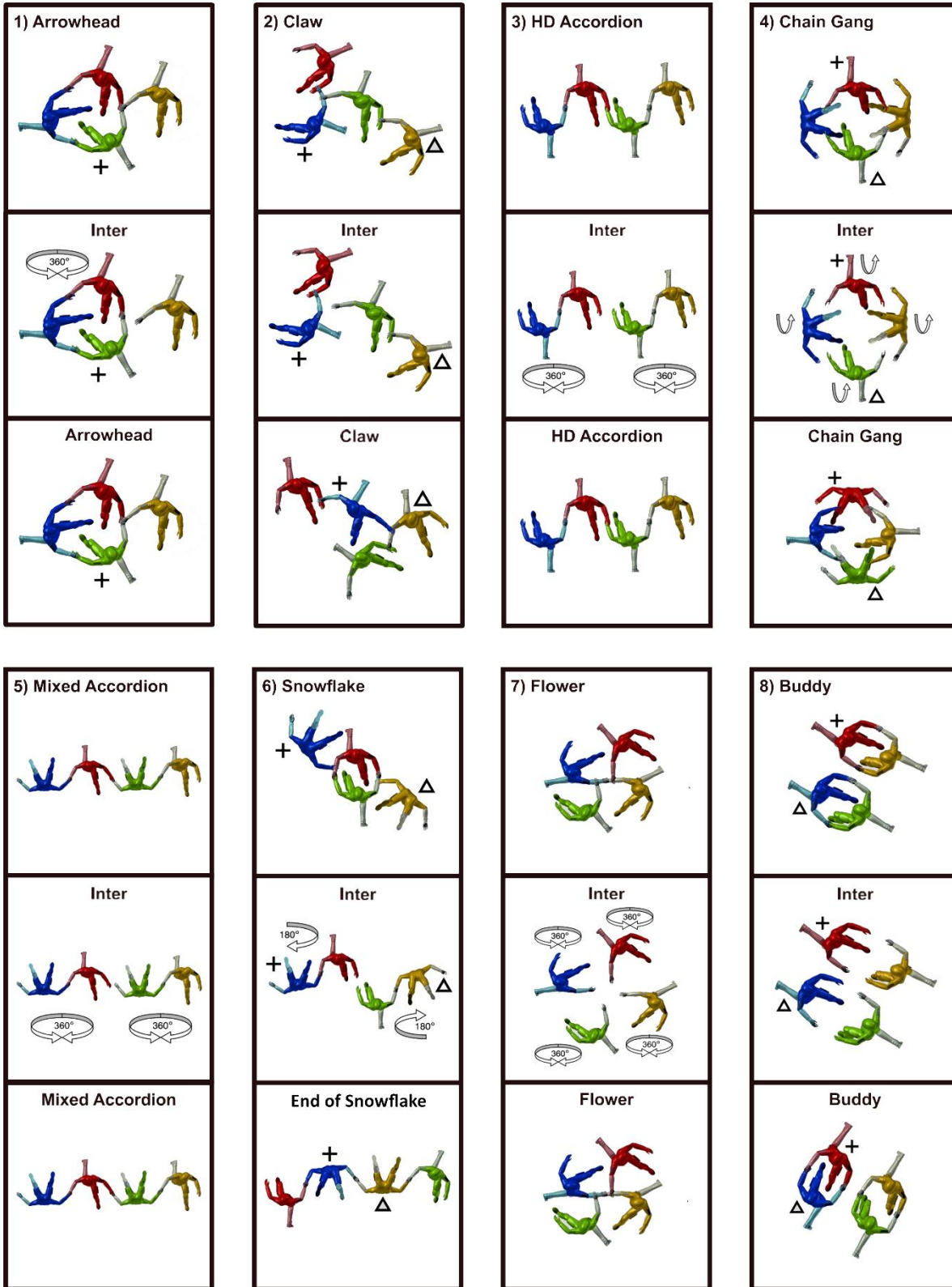
Chinese Tee



**APPENDIX II –4-WAY FS RANDOM POOL**

<p><b>A</b></p>  <p align="center">Unipod</p>	<p><b>B</b></p>  <p align="center">Stairstep Diamond</p>	<p><b>C</b></p>  <p align="center">Murphy Flake</p>	<p><b>D</b></p>  <p align="center">Yuan</p>
<p><b>E</b></p>  <p align="center">Meeker</p>	<p><b>F</b></p>  <p align="center">Open Acordian</p>	<p><b>G</b></p>  <p align="center">Cataccord</p>	<p><b>H</b></p>  <p align="center">Bow</p>
<p><b>J</b></p>  <p align="center">Donut</p>	<p><b>K</b></p>  <p align="center">Hook</p>	<p><b>L</b></p>  <p align="center">Adder</p>	<p><b>M</b></p>  <p align="center">Star</p>
<p><b>N</b></p>  <p align="center">Crank</p>	<p><b>O</b></p>  <p align="center">Satellite</p>	<p><b>P</b></p>  <p align="center">Sidebody</p>	<p><b>Q</b></p>  <p align="center">Phalanx</p>

## APPENDIX III – 4-WAY VFS BLOCK POOL



Images Courtesy of International Bodyflight Association

**9) Shorty**

**Inter**

**Shorty**

**10) Mixed Anthem**

**Inter**

**Mixed Anthem**

**11) Fun Buddies**

**Inter**

**Fun Buddies**

**12) Pinwheel**

**Inter**

**Pinwheel**

**13) HD Star**

**Inter**

**HD Star**

**14) Satellite**

**Inter**

**Satellite**

**15) Bipole**

**Inter**

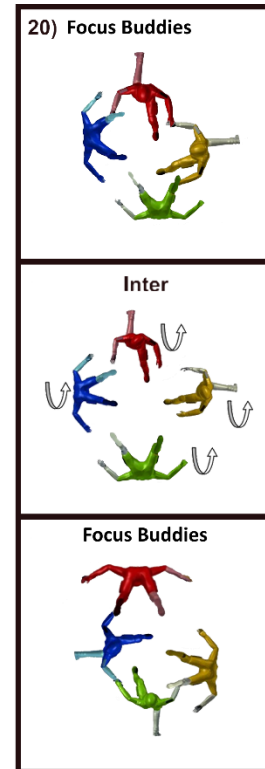
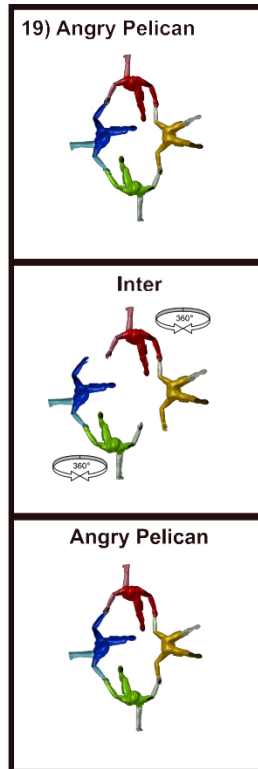
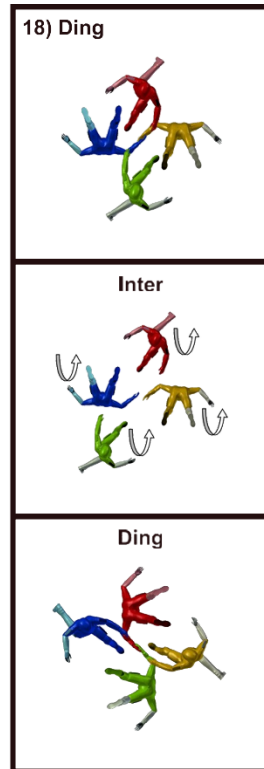
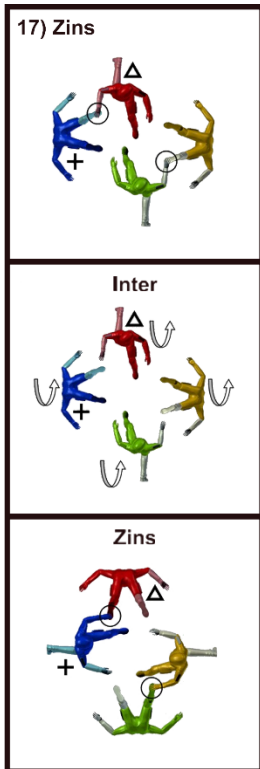
**Bipole**

**16) Chimmy**

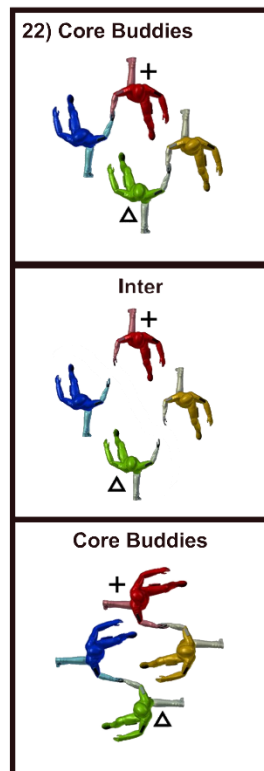
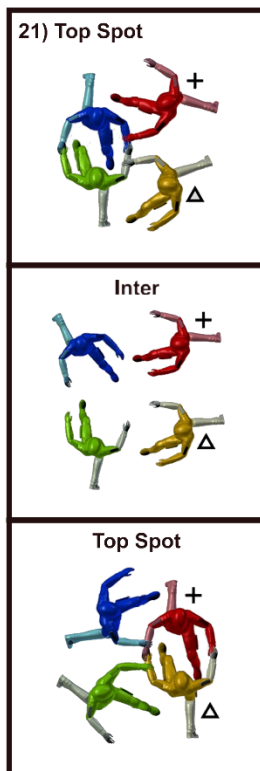
**Inter**

**Chimmy**

 Images Courtesy of International Bodyflight Association

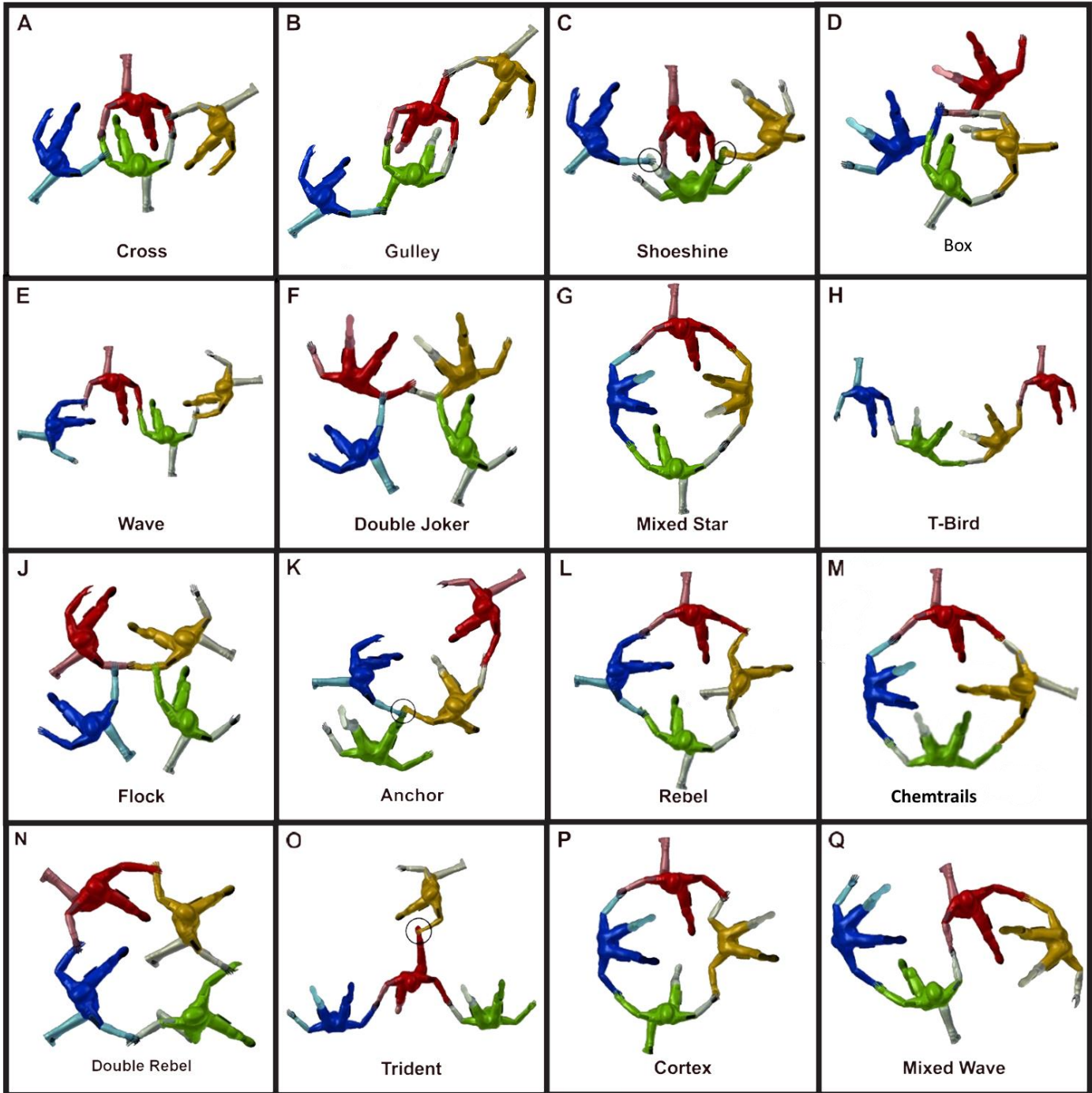


Note: A circle denotes a foot grip (ref. Competition rules 2.2)



 Images Courtesy of International Bodyflight Association

## APPENDIX IV – 4-WAY VFS RANDOM POOL

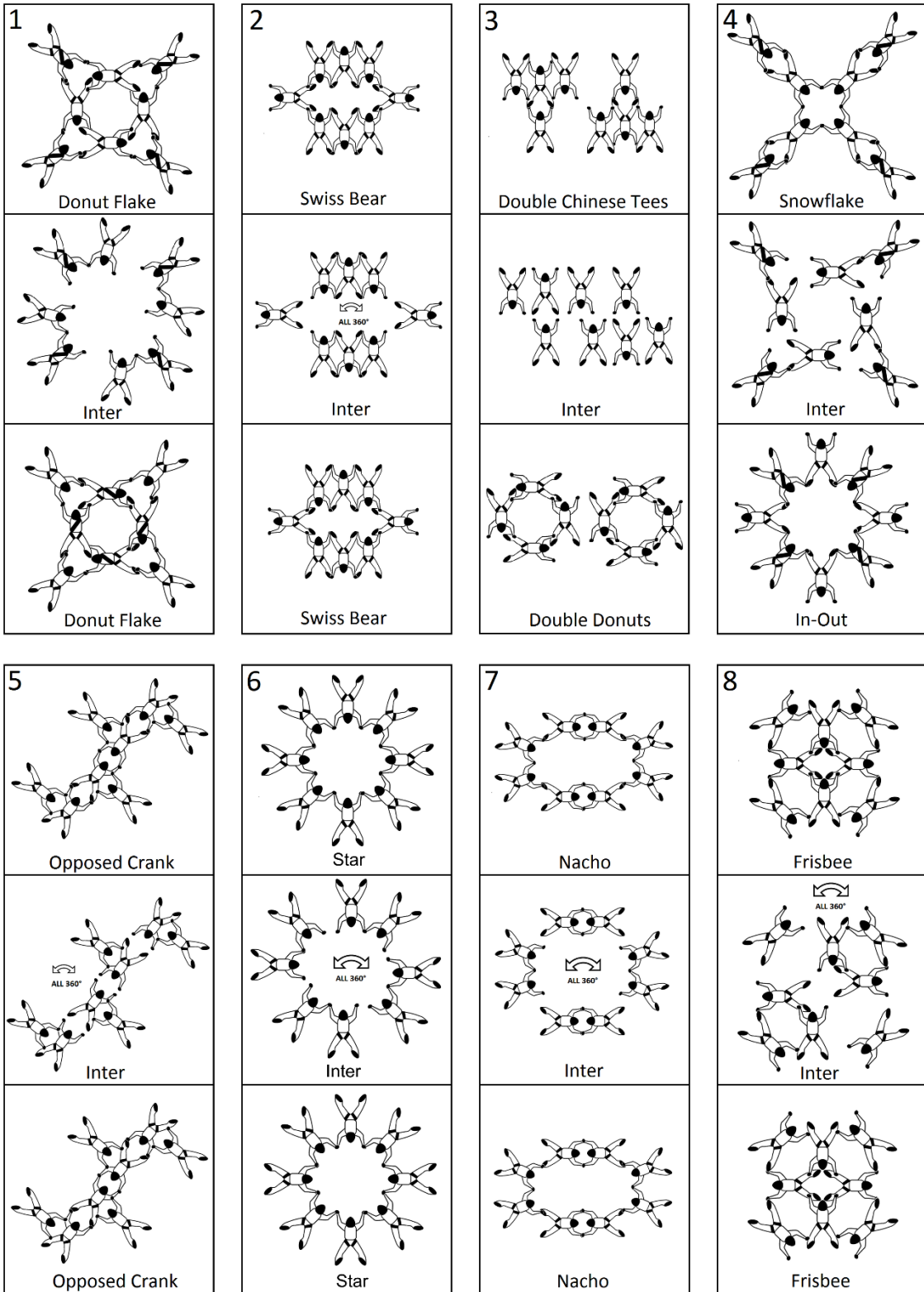


Note: A circle denotes a foot grip (ref. Competition rules 2.2)



images courtesy of International Bodyflight Association

## APPENDIX V – 8-WAY FS BLOCK POOL



9

Taj

Inter

Mahal

10

Donut

Inter

Donut

11

Norwegian Box

Inter

Norwegian Donut

12

Stereo Bipoles

Inter

Stereo Bipoles

13

Double Satellite

Inter

Double Satellite

14

Zippered Opals

Inter

Zippered Opals

15

Zippers

Inter

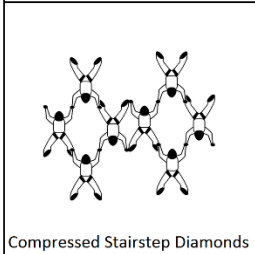
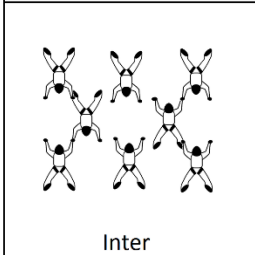
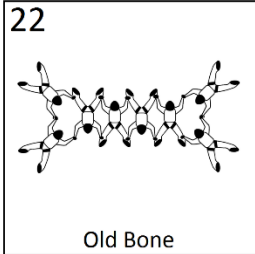
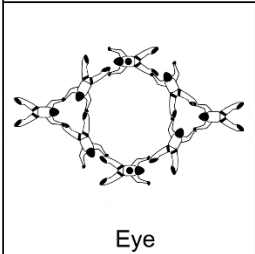
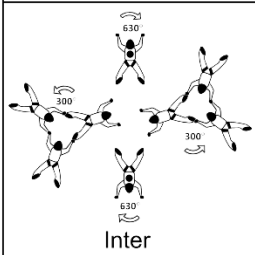
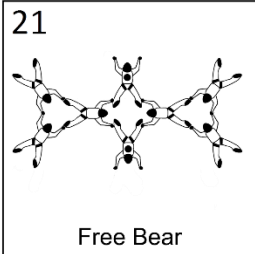
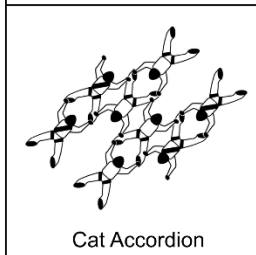
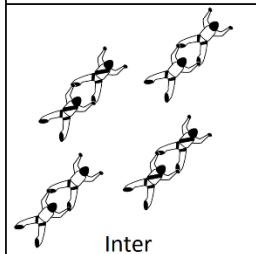
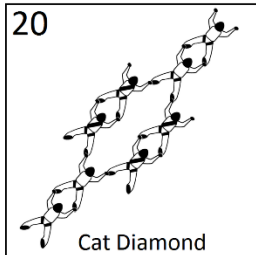
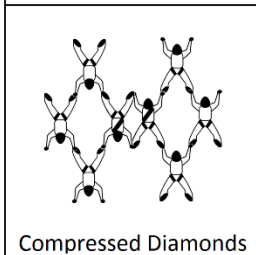
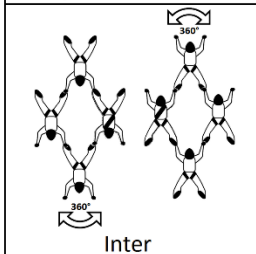
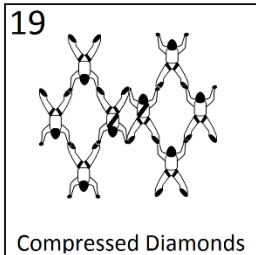
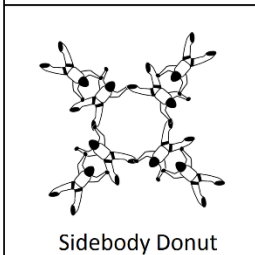
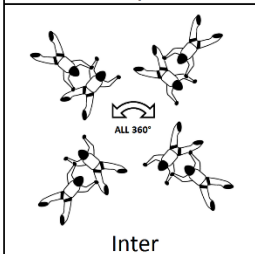
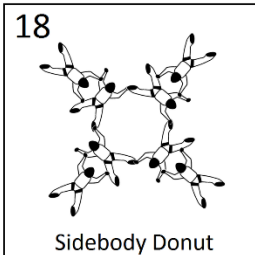
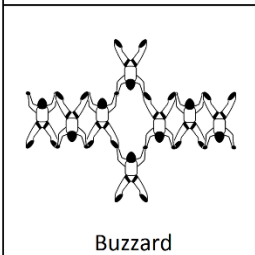
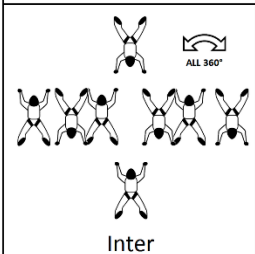
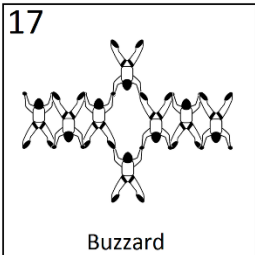
Double Yuans

16

Canadian Tees

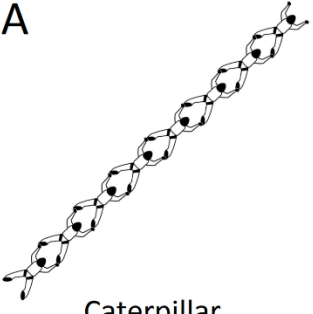
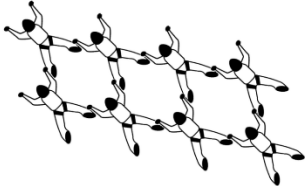
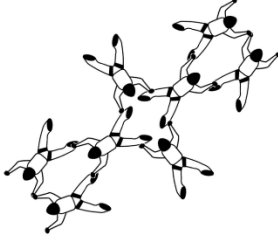
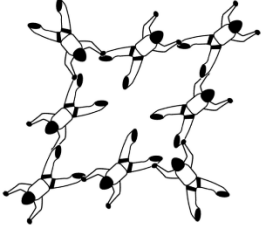
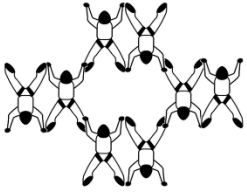
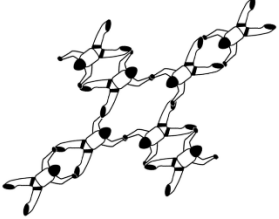
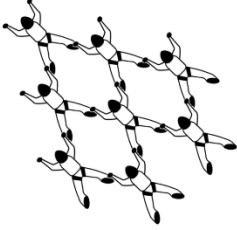
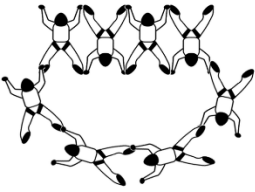
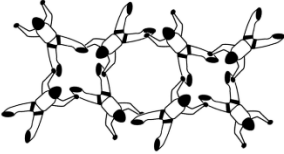
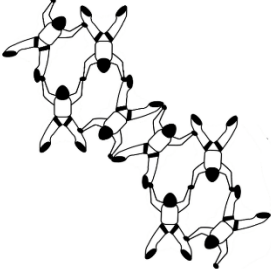
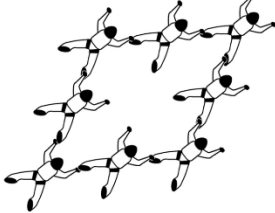
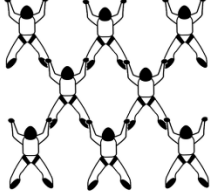
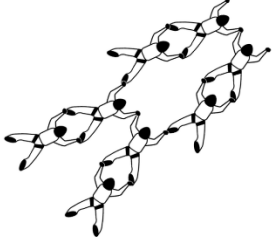
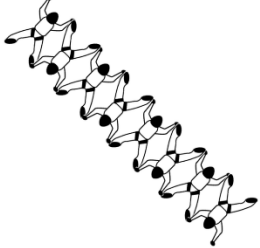
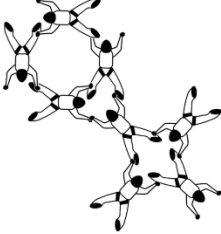
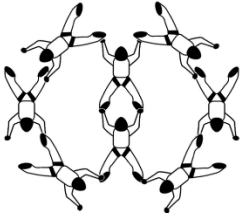
Inter

Monopods

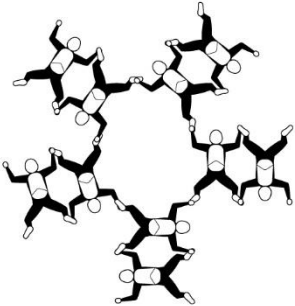
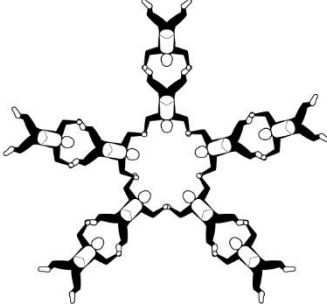
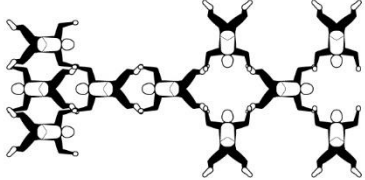
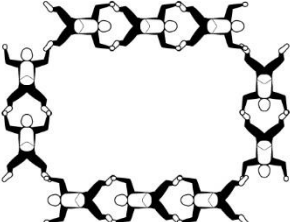
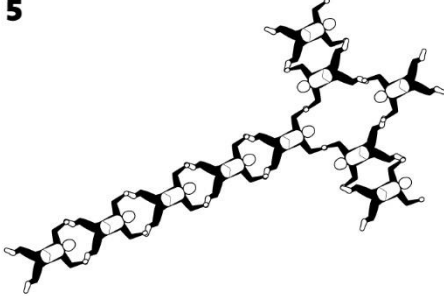
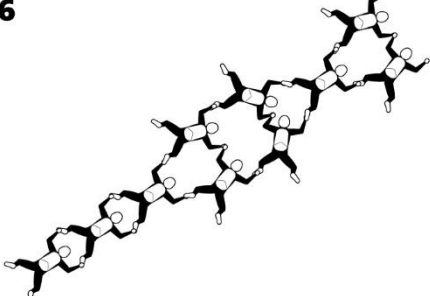
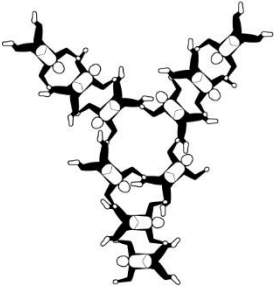
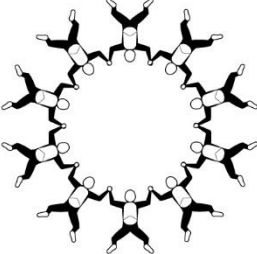
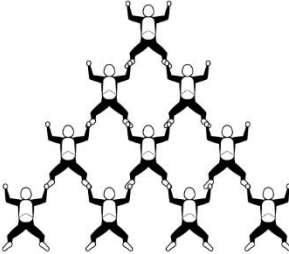
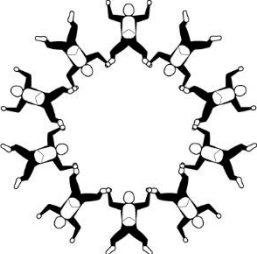
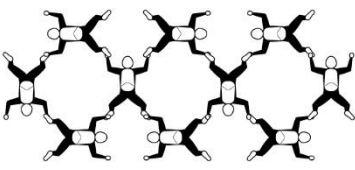
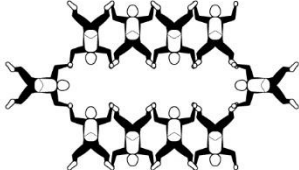




## APPENDIX VI – 8-WAY FS RANDOM POOL

<p><b>A</b></p>  <p>Caterpillar</p>	<p><b>B</b></p>  <p>Stairstep</p>	<p><b>C</b></p>  <p>Hourglass</p>	<p><b>D</b></p>  <p>Hope Diamond</p>
<p><b>E</b></p>  <p>Rubik</p>	<p><b>F</b></p>  <p>Diamond Flake</p>	<p><b>G</b></p>  <p>Arrowhead</p>	<p><b>H</b></p>  <p>Iriquois</p>
<p><b>J</b></p>  <p>Springbok</p>	<p><b>K</b></p>  <p>Double Meekers</p>	<p><b>L</b></p>  <p>Open Facing Diamond</p>	<p><b>M</b></p>  <p>Double Spiders</p>
<p><b>N</b></p>  <p>Zipper Flake</p>	<p><b>O</b></p>  <p>Compressed Accordion</p>	<p><b>P</b></p>  <p>Venus</p>	<p><b>Q</b></p>  <p>Compass</p>

## APPENDIX VII – 10-WAY SPEED FORMATIONS

<p><b>1</b></p>  <p><b>Compressed Donut</b></p>	<p><b>2</b></p>  <p><b>Tom's Texas</b></p>	<p><b>3</b></p>  <p><b>Missing Tom</b></p>
<p><b>4</b></p>  <p><b>Box Score</b></p>	<p><b>5</b></p>  <p><b>Ottley Sword</b></p>	<p><b>6</b></p>  <p><b>Raeford Dragon</b></p>
<p><b>7</b></p>  <p><b>Roger Rabbit</b></p>	<p><b>8</b></p>  <p><b>Star</b></p>	<p><b>9</b></p>  <p><b>Wedge</b></p>
<p><b>10</b></p>  <p><b>Out-In</b></p>	<p><b>11</b></p>  <p><b>Triple Donuts</b></p>	<p><b>12</b></p>  <p><b>Trapped Bear</b></p>