

# **Competition Rules Canopy Formation**



2023 Edition
Effective 1 March 2023

Ver.1 2023-01-03

## Copyright 2023

All rights reserved. Copyright in this document is owned by the Fédération Aéronautique Internationale (FAI). Any person acting on behalf of the FAI or one of its members is hereby authorised to copy, print, and distribute this document, subject to the following conditions:

- 1. The document may be used for information only and may not be exploited for commercial purposes.
  - 2. Any copy of this document or portion thereof must include this copyright notice.
  - 3. Regulations applicable to air law, air traffic and control in the respective countries are reserved in any event. They must be observed and, where applicable, take precedence over any sport regulations

Note that any product, process or technology described in the document may be the subject of other Intellectual Property rights reserved by the Fédération Aéronautique Internationale or other entities and is not licensed hereunder.

## RIGHTS TO FAI INTERNATIONAL SPORTING EVENTS

All international sporting events organised wholly or partly under the rules of the Fédération Aéronautique Internationale (FAI) Sporting Code are termed FAI international sporting events. Under the FAI Statutes, FAI owns and controls all rights relating to FAI international sporting events. FAI Members shall, within their national territories, enforce FAI ownership of FAI international sporting events and require them to be registered in the FAI Sporting Calendar.

An event organiser who wishes to exploit rights to any commercial activity at such events shall seek prior agreement with FAI. The rights owned by FAI which may, by agreement, be transferred to the event organiser include, but are not limited to advertising at or for FAI events, use of the event name or logo for merchandising purposes and use of any sound, image, program and/or data, whether recorded electronically or otherwise or transmitted in real time. This includes specifically all rights to the use of any material, electronic or other, including software, that forms part of any method or system for judging, scoring, performance evaluation or information utilised in any FAI international sporting event.

Any person or legal entity that accepts responsibility for organising a FAI Sporting event, whether or not by written agreement, in doing so also accepts the proprietary rights of FAI as stated above. Where no transfer of rights has been agreed in writing, FAI shall retain all rights to the event. Regardless of any agreement or transfer of rights, FAI shall have, free of charge for its own archival and/or promotional use, full access to any sound and/or visual images of any FAI Sporting event. The FAI also reserves the right to arrange at its own expense for any and all parts of any event to be recorded.



Link for FAI Statutes and By Laws

# **TABLE OF CONTENTS**

This document, the Competition Rules for Canopy Formation, 2023 Edition, takes effect on the 1<sup>st</sup> March 2023. The 2023 Edition differs from the 2022 Edition in those paragraphs with a vertical bar in the margin.

1	FALA	AUTHORITY	5
2	DEF	INITIONS OF WORDS AND PHRASES USED IN THESE RULES	5
	2.1	Formation	5
	2.2	Grip	5
	2.3	Configurations	5
	2.4	Total Separation:	5
	2.5	Inter:	5
	2.6	Scoring Formation:	5
	2.7	Infringement:	6
	2.8	Sequence	6
	2.9	NV	6
	2.10	Omission	6
	2.11	Working Time	6
3	THE	EVENTS	6
	3.1	Description of the Events	6
	3.2	Minimum Rounds	6
	3.3	Objective of the Events	6
	3.4	Performance Requirement	7
	3.5	Determination of Winners	7
4	GEN	ERAL RULES	7
	4.1	Equipment	7
	4.2	Meteorological Conditions	7
	4.3	Safety	7
	4.4	End of Working Time	7
	4.5	The Draw	8
	4.6	Training Jumps	8
	4.7	Jump Order	8
	4.8	Exit Procedure	8
	4.9	Video Transmission and Recording	8
	4.10	Rejumps	9
	4.11	Scoring	9
5	RUL	ES SPECIFIC TO THE EVENTS	9
	5.1	2-WAY Sequential Event	9

	5.2	4-WAY Sequential Event10	)
	5.3	4-WAY Rotation Event	)
6	JUD	GING RULES11	
	6.1	Scoring System	
	6.2	Start of Working Time11	
	6.3	Viewing11	
	6.4	Size of Panel	
	6.5	Scoring11	
	6.6	Posting11	
7	RUL	ES SPECIFIC TO THE COMPETITION11	
	7.1	Title of Competition	
	7.2	Aims	
	7.3	Composition of Delegations	2
	7.4	Program of Events	2
8	DEF	INITIONS & DIVE POOL	}
	8.1	Definitions	}
	8.2	Visualization for Grip Definition (ref. 2.2)13	}
	Addend	dum 8.3: 4-WAY Sequential Block Formations13	}
	Addend	dum 8.4: 4-WAY Sequential Random Formations13	}
	Addend	dum 8.5: 2-WAY Sequential Random Formations13	}
	8.3	4-WAY SEQUENTIAL BLOCK FORMATIONS	ļ
	8.4	4-WAY SEQUENTIAL RANDOM FORMATIONS:	3
	8.5	2-WAY SEQUENTIAL RANDOM FORMATIONS:	)

#### 1 FAI AUTHORITY

The competition will be conducted under the authority granted by the FAI, according to the regulations of the Sporting Code of the FAI, General Section, and Section 5 as approved by the IPC and validated by the FAI, and these rules. All participants accept these rules and the FAI regulations as binding by registering in the competition.

#### 2 DEFINITIONS OF WORDS AND PHRASES USED IN THESE RULES

#### 2.1 Formation

Consists of competitors linked by grips.

### 2.2 Grip

Consists of a

- (a) hand hold or on an "A" line or front riser
- (b) Contact with the "A" line from behind with the front of the lower leg or ankle, defined as between the instep of the foot and below the knee. (The instep of the foot needs to be clearly identifiable on the video footage submitted, for example: by tape in a contrasting colour to that of the shoe).

so that a formation is built in accordance with the configurations as depicted in the dive pool.

#### 2.3 Configurations

#### 2.3.1 Stack

The shoulder of the upper jumper must be above the upper surface of the lower canopy and/or the hip of the upper jumper must be above the lower surface of the lower canopy. A grip must be on an "A" line attached to the center cell.

## 2.3.2 Stairstep

The shoulder of the upper jumper must be above the upper surface of the lower canopy and/or the hip of the upper jumper must be above the lower surface of the lower canopy. The grip must only be on the outside "A" line of the end cell. The grip must be taken with the inside foot; this may include an additional handhold, if desired.

#### 2.3.3 Plane

The head of the upper jumper must be below the lower surface of the lower canopy. A grip must be on a front riser or an "A" line attached to the center cell.

#### 2.3.4 Plane/stack

Plane, stack or any position on a riser or an "A" line attached to the center cell between these configurations. A correct grip must be maintained.

The above configurations only apply to complete formations.

## 2.4 Total Separation:

Total separation is when all competitors show at one point in time they have released all their grips and no part of their arms or feet have contact with another canopy.

#### 2.5 Inter:

Inter is an intermediate requirement within a block sequence which must be performed as depicted in the dive pools.

## 2.6 Scoring Formation:

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, apart from the first formation after exit, must be preceded by a correctly completed and clearly presented total separation or inter, as appropriate.

## 2.7 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.

If an infringement in the scoring formation of a block sequence is carried into the inter, 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.

#### 2.8 Sequence

A series of blocks and random formations that are designated by the draw.

## 2.9 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.

#### 2.10 Omission

is one of the following:

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

## 2.11 Working Time

The working time begins at the moment of the first complete separation of a grip from the first scoring formation whether correct or not, or 60 seconds after exit of the first team member, including the team's Videographer, whichever is first. If the judges cannot determine the working time from the video footage submitted, the following procedure will be followed. The Event Judge will determine the closest approximation to the working time and begin the chronometer and a penalty equal to 20% (rounded down) of the score for that jump will be deducted from the score for that round.

### 3 THE EVENTS

## 3.1 Description of the Events

The discipline will comprise the following events

- 3.1.1 2-Way Sequential Event 8 rounds
- 3.1.2 4-Way Sequential Event 8 rounds
- 3.1.3 4-Way Rotation Event 8 rounds

#### 3.2 Minimum Rounds

A minimum of one round must be completed to establish winners in any event.

# 3.3 Objective of the Events

The accumulated total of all completed rounds is used to determine the final rank of the teams and declare the winner.

## 3.4 Performance Requirement

- 3.4.1 2-way Sequential Event: Each round consists of a repeatable sequence drawn from the dive pool.
- 3.4.2 4-way Sequential Event: Each round consists of a repeatable sequence drawn from the dive pool.
- 3.4.3 4-way Rotation Event: Each round consists of successive 4-way plane/stack formations made by rotations. 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 4-way plane/stack formation. The inter is the remaining correctly completed 3-way plane/stack formation.

#### 3.5 Determination of Winners

Where two or more teams have equal scores the following order of procedures will be applied to determine the final placings:

- 3.5.1 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,
- 3.5.2 the highest score in any completed round,
- 3.5.3 the highest score starting with the last completed round and continuing in reverse order, round by round until the tie is broken,
- 3.5.4 the fastest time (measured to hundredths of a second) to the last formation scored without infringement by both teams in the last completed round. Starting time must be that used for original evaluation of the jump.
- 3.5.5 Tied teams placed lower than third remain tied.

#### 4 GENERAL RULES

#### 4.1 Equipment

- 4.1.1 Canopy Formation must not be performed using a reserve parachute.
- 4.1.2 Competitors must carry the following equipment:
  - 4.1.2.1 Each team member must carry a hook-knife for emergency use.
  - 4.1.2.2 Each member of each team must carry a serviceable altimeter.

## 4.2 Meteorological Conditions

- 4.2.1 When air turbulence is apparent or clouds at lower altitudes affect visibility, the Meet Director may decide to raise the exit altitude. The Meet Director must inform all jumpers of the decision. This decision is not open to protest.
- 4.2.2 Teams may refuse to jump in rain, turbulent conditions or for any pertinent reason as per Section 5 5.2.8 (4). Whenever possible, evidence must be provided. The Meet Director, FAI Controller and the Chief Judge by unanimous decision may decide to continue the event. If a team aborts a jump a second time for the same reason, that team will not jump that round and must be awarded the maximum or minimum score, whichever is worse.
- 4.2.3 Rain occurring any time after the first team member exits the aircraft is no grounds for protest.

## 4.3 Safety

All forms of Canopy Formation jumping must cease by 750 meters (~2500 ft).

#### 4.4 End of Working Time

After working time has elapsed, only the drawn sequence for that round may be performed. If any other canopy formation is performed the team will receive a score of zero for that round. This decision is no grounds for protest.

- 4.4.1 To prove that this is followed, the team's videographer shall regularly sweep the horizon showing a complete separation of all performers.
- 4.4.2 The recordings of all competition jumps by the team shall be stored by the team's videographer until the completion of the Meet, and presented to the Chief Judge at request, if needed to validate the sequence performed after working time arises.
- 4.4.3 If the same team is found to have broken rule 4.4 on two occasions in the same competition, the team concerned will be disqualified from that competition. This decisions is no grounds for a protest.

## 4.5 The Draw

A public draw of the sequences and the jump order will be supervised by the Chief Judge. The teams will be given not less than two hours knowledge of the results before the competition starts.

## 4.6 Training Jumps

- 4.6.1 Each team in each event will be given the option of one official training Jump before the draw is made.
- 4.6.2 Training jumps may not be made after the draw has been made public. If time allows these jumps may be assessed by the judges and, if assessed, the score shall be published.
- 4.6.3 Two drawn rounds will be made available for teams use. Teams can perform a sequence of their own choice instead and receive an evaluation from the judges. In this case, teams must provide the sequence to the judges with the video.

#### 4.7 Jump Order

The drawn jump order will be used for all rounds. Time permitting, and at the discretion of the Meet Director, reverse order of ranking may be used for the final two rounds.

#### 4.8 Exit Procedure

- 4.8.1 There is no limitation on the exit other than those imposed by the Chief Pilot for safety reasons. The pilot must maintain the altitude and direction until the aircraft is well clear of the jumpers.
- 4.8.2 Teams will be responsible for their own exits once the aircraft has commenced the jump run and the team has been cleared to exit.
- 4.8.3 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 2.11. If Judges cannot determine the exit time, the following procedure will be followed. Exit 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.
- 4.8.4 The pilot chute must not be withdrawn from the equipment until the team member is clear of the aircraft.

# 4.9 Video Transmission and Recording

- 4.9.1 Each team shall provide the video evidence required to judge each round. Each Videographer must use the video transmission system provided by the Organiser.
- 4.9.2 The Organiser must provide the teams with a way of identification of the team showing the date, round, and team number to be recorded by the Videographer just before exit. The recording should continue with the jump without a stop in recording.
- 4.9.3 The video equipment must be able to deliver a High Definition 1080 type digital signal with a minimum frame rate of 50 frames per second, through a memory card.
  - The Videographer is responsible for ensuring the compatibility of their video equipment with the scoring system.

- 4.9.4 As soon as possible after each jump is completed, the Videographer must deliver the video equipment (including the video used to record that jump) for dubbing at the designated dubbing station. The video evidence must remain available for viewing or download until all scores are posted as final.
- 4.9.5 Only one video recording will be dubbed and judged. Secondary video recordings may only be used in NV situations.
- 4.9.6 The dubbing station will be as close to the landing area as possible.
- 4.9.7 A Video Controller will be appointed by the organiser and approved by the Chief Judge prior to the start of the Official Training Jumps. Prior to the competition beginning, the Video Controller may inspect a team's video equipment to verify that it meets the performance requirements, as determined by him/her. Inspections that do not interfere with a team's performance may be made at any time during the competition, as determined by the Chief Judge. If any video equipment does not meet the performance requirements as determined by the Video Controller, this equipment will be deemed to be unusable for the competition.
- 4.9.8 A Video Review Panel (VRP) will be established prior to the start of the official training jumps, consisting of the Chief Judge, the President of the Jury and the FAI Controller. Decisions rendered by the Video Review Panel shall be final and shall not be subject to protest or review by the Jury.
- 4.9.9 If the Video Review Panel determines that the video equipment has been deliberately tampered with, the team will receive no points for all competition rounds involved with this tampering.

## 4.10 Rejumps

- 4.10.1 In the case of an NV, the Video Review Panel will assess the conditions and circumstances surrounding that occurrence and may award a rejump. 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 for that jump.
- 4.10.2 Problems with a team's equipment are not grounds for a rejump, except as determined in an NV situation and in 4.10.3.
- 4.10.3 In the event of an equipment malfunction, or for any other safety reason, only one rejump may be granted per team, per competition event. This rejump will not be granted if the team builds a complete formation (correct or not) at any time during the jump.
  - All evidence of the malfunction or intention to abort the jump before the first complete formation for safety reasons must be provided by the team. This evidence must include a written statement from the team. The Meet Director in conjunction with the Chief Judge will assess the conditions and circumstances surrounding the occurrence. A rejump will not be granted if it is determined that there was an intentional abuse of the rules by the team; and the team's score for that jump will be zero.
- 4.10.4 Contact or other means of interference between a team and its Videographer are not grounds for the team to request a rejump.

# 4.11 Scoring

- 4.11.1 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. Provision of the video evidence for judging purposes is the responsibility of the team.
- 4.11.2 If a competitor or team is disqualified for a jump, they will receive zero points for that jump.

## 5 RULES SPECIFIC TO THE EVENTS

## 5.1 2-WAY Sequential Event

5.1.1 Exit altitude shall be 2450 meters (~8000 ft) AGL with a working time of 60 seconds.

- 5.1.2 The draw of the sequences: Each round consists of five formations that have been drawn from the dive pool of 12 formations (2 of each). After each sequence is drawn, the five formations shall be returned to the dive pool so that they may be drawn again.
- 5.1.3 Scoring: Teams will be awarded one point for each correctly completed formation which, apart from the first formation, is preceded by total separation within the working time. Teams will not be awarded points for incorrect formations. There will be no penalty.
- 5.1.4 Omissions: 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. However, the scoring will not be affected if the team goes back to correctly complete the omitted formation within working time. Formations built correctly after the omitted formation will be scored in the normal manner.
- 5.1.5 Each formation must be performed in accordance with the illustrations in the drawn sequence. 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. There must be release of all grips between each formation. No mirror formations are allowed. All formations shall be performed as shown in the dive pool, as seen from behind.

## 5.2 4-WAY Sequential Event

- 5.2.1 Exit altitude shall be 3050 meters (~10,000 ft) AGL with a working time of 120 seconds.
- 5.2.2 The draw of the sequences: Each block sequence or random from the Dive Pool will be drawn only once for each competition. All rounds shall consist of four or five scoring formations, whichever number is reached first.
- 5.2.3 Scoring: Teams will be awarded one point for each correctly completed formation which, apart from the first formation, is preceded by an inter correctly completed within the working time. Teams will not be awarded points for incorrect formations. There will be no penalty.
- 5.2.4 Omissions: 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 will be deducted per omission from that round as a penalty. However, the scoring will not be affected if the team goes back to correctly complete the omitted formation within working time. Formations built correctly after the omitted formation will be scored in the normal manner.
  - 5.2.4.1 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 drawn sequence, will be judged as an incorrect formation, not as an omission.
- 5.2.5 Each formation and inter requirement must be performed in accordance with the drawn sequence. Where there is no inter requirement between formations, there must be release of all grips between all canopies at one point in time. Mirror images are acceptable for complete blocks and random formations. Formations need not be symmetrical. At the end of a sequence there must be release of all grips before restarting the sequence as drawn.

## 5.3 4-WAY Rotation Event

- 5.3.1 Exit altitude shall be 2800 meters (~9000 ft) AGL with a working time of 90 seconds.
- 5.3.2 SCORING: Teams will be scored from the first formation, whether correct or not. Teams will be awarded one point for the first correctly completed formation and then every correctly completed 4-way plane/stack formation within the working time, according to the performance requirement. Team members rotating from the top of the plane/stack formation before the bottom team member has taken a grip will not receive credit for that formation. The following formation (the rebuild) shall be scored as zero (0) points, except for the formation following the first formation after the start of working time.

#### 6 JUDGING RULES

# 6.1 Scoring System

The judges may use an electronic scoring system to record their evaluation of the performance.

## 6.2 Start of Working Time

The judges shall start the timing when the first team member (including the team's Videographer) leaves the aircraft. At the end of working time, freeze frame of the video image shall be applied.

## 6.3 Viewing

The Judges will watch the video evidence of each jump (1) one time at normal speed. 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 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 freeze frame from the first viewing will be applied on each viewing.

6.3.1 If, after all viewings are complete, and within 15 seconds of 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. If the review results in a minimum four to one judge decision by the Judges that an absolutely incorrect assessment has occurred on the part(s) of the jump in question, the score for the jump will be adjusted accordingly. Only one review is permitted for each jump.

## 6.4 Size of Panel

Each performance must be evaluated by a panel of five judges.

#### 6.5 Scoring

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.

#### 6.6 Posting

All judges scores shall be posted.

## 7 RULES SPECIFIC TO THE COMPETITION

## 7.1 Title of Competition

- " FAI World/Continental Canopy Formation Championships."
- " \_\_\_\_FAI World Cup in Canopy Formation."

#### 7.2 Aims

of the \_\_ FAI World/Continental Canopy Formation Championships,

and the \_\_FAI World Cup in Canopy Formation

- 7.2.1 To determine the World/Continental Champions and World Cup winners, in Canopy Formation in the following events:
  - 2way Sequential
  - 4way Sequential
  - 4way Rotation

- 7.2.2 To determine the world standings of the competing teams.
- 7.2.3 To establish Canopy Formation world records.
- 7.2.4 To promote and develop Canopy Formation competition.
- 7.2.5 To exchange ideas and strengthen friendly relations between the sport parachutists of all nations.
- 7.2.6 To allow participants to share and exchange experience, knowledge and information.
- 7.2.7 To improve judging methods and practices.

# 7.3 Composition of Delegations

- 7.3.1 Each delegation may comprise:
  - · One (1) Head of Delegation,
  - · One (1) Team Manager

## 7.3.2 At a World Parachuting Championship or Continental Championship:

- Two 2-way teams consisting of up to four (4) members, any of who may be the team Videographer.
- Two 4-way Sequential team consisting of up to six (6) members, any of who may be the team Videographer.
- Two 4-way Rotation team consisting of up to six (6) members, any of who may be the team Videographer.
- 7.3.3 **At a World Cup:** Any number (to a maximum of 4) teams per event (composed as for a World Championship) to be decided by the Organiser.
- 7.3.4 Videographers must be entered for each team as part of the delegation. The evaluation process for the video evidence will be the same for any Videographer. Videographers may be one of the following:
  - a) one of the members of the team and meet all the requirements necessary to be on the team and is eligible to receive medals and awards or;
  - b) any other person. This Videographer is not eligible to receive awards and medals. In this case there may be no more than three (3) competitors in a 2-Way team, and no more than five (5) competitors in a 4-Way team. This Videographer may jump only as a Videographer and is subject to the same regulations as other competitors on the team. A Videographer may be replaced at any time during the competition, (with the agreement of the Meet Director) in which case the replacement Videographer will not be eligible for awards and medals.
- 7.3.5 Each competitor and Videographer shall only be allowed to compete for one team in each event.

#### 7.4 Program of Events

7.4.1 The competition will be organised during a maximum time frame of five (5) competition days. Exceptions may be made where a bid is received for multiple FCE competitions at one time.

# 8 DEFINITIONS & DIVE POOL

## 8.1 Definitions

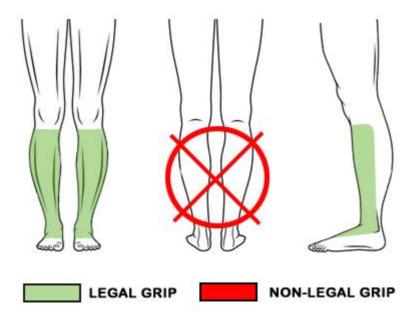
Definitions used in the formation diagrams are as follows:

## 8.1.1 Canopy identification:



8.1.2 Block sequence numbers: 1 2 3 48.1.3 Random formation letters: A B C D8.1.4 Intermediate requirement: INTER

# 8.2 Visualization for Grip Definition (ref. 2.2)

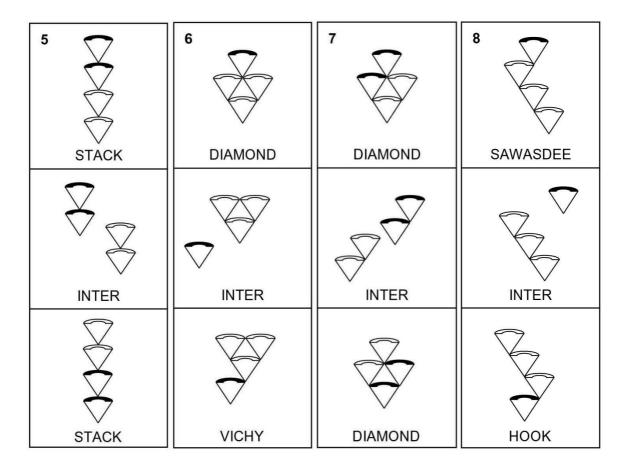


# **ADDENDA**

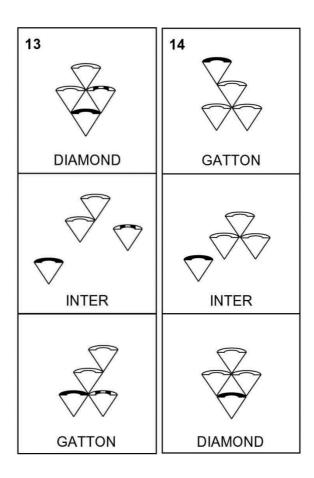
Addendum 8.3: 4-WAY Sequential Block Formations
 Addendum 8.4: 4-WAY Sequential Random Formations
 Addendum 8.5: 2-WAY Sequential Random Formations

# 8.3 4-WAY SEQUENTIAL BLOCK FORMATIONS

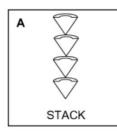
1	2	3	4
SNAKE	DIAMOND	STAIRSTEP	STEP STACK
	INITED		
INTER	INTER	INTER	INTER
GATTON	TWO STEP	SNAKE	TWO STEP

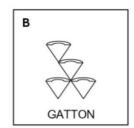


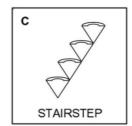
9	10	11	12
STEP STACK	STEP STACK	SNAKE	STAIRSTEP
INTER	INTER	INTER	INTER
SNACK	STAIRSTEP	STAIR STACK	DIAMOND

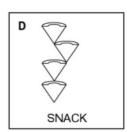


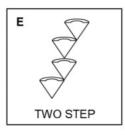
# 8.4 4-WAY SEQUENTIAL RANDOM FORMATIONS:

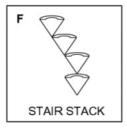


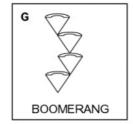


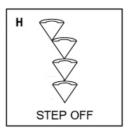


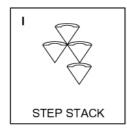


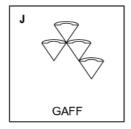


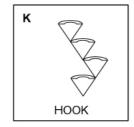


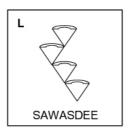




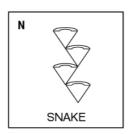




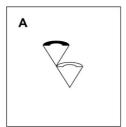


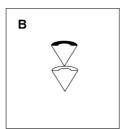


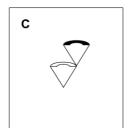


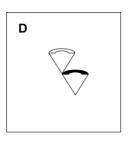


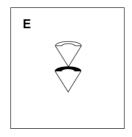
# 8.5 2-WAY SEQUENTIAL RANDOM FORMATIONS:

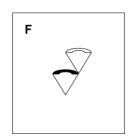


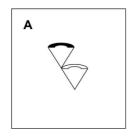


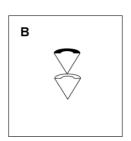


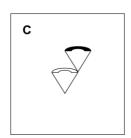


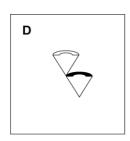


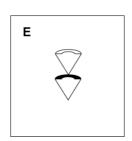


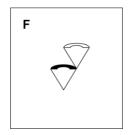














FAI - Fédération Aéronautique Internationale Avenue de Rhodanie 54 CH-1007 Lausanne Switzerland Tel: +41 21 345 10 70

Fax: +41 21 345 10 77 www.fai.org

www.fai.org info@fai.org