# INTERNATIONAL SPORT KITE COMPULSORIES BOOK 

## VERSION 2.2.1

## 5 DECEMBER 2011



All Japan Sport Kite Association


## American Kitefliers Association



Sport Team and Competitive Kiting

## Change History:

## Version 1.0-1 August 2002

Original

## Version 1.1-11 September 2002

For changes, please refer to ISKCB V1.1 of 11 September 2002

## Version 2.0-1 August 2005

For changes, please refer to ISKCB V2.0 of 1 August 2005

## Version 2.01-1 October 2005

For changes, please refer to ISKCB V2.01 of 1 November 2005

## Version 2.1-1 August 2006

For changes, please refer to ISKCB V2.1 of 1 August 2006

## Version 2.2-6 August 2009

1. Eliminated description of key components and added broad description of scoring III.A.
2. Combined prior "Critical Components" and "Other Components" into an aggregate heading, "Judges will Particularly Consider," for all figures. No changes to these components were made other than re-labeling.

## Version 2.2.1 - 5 December 2011

1. Amendments to figure diagrams DT04 and DT16 (removal of speed control elements previously integral to lines of entry and exit).
2. Amendment of "Judges Will Particularly Consider" notations to coincide with the above.

The International Rule Book Committee - 2011

| AJSKA | AKA | STACK |
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## Notice

Unless otherwise specified, this Compulsories Book is considered as a rule that may be amended by the sanctioning authority at the beginning of the competition season.

The Official adoption dates of this Compulsories Book, unless otherwise announced by the respective sanctioning authority, are:

01 January, 2012 - AJSKA (All Japan Sport Kite Association)
01 January, 2012 - AKA (American Kitefliers Association)
01 January, 2012 - STACK (Sport Team and Competitive Kiting)

## I. WIND WINDOW AND PRECISION GRID DEFINITIONS

## A. Wind Window

The wind window is the area within the roughly semicircular plane described by the greatest height a kite can reach at every angle in front of a stationary flier. The size of the window is limited by the ground, the length of the flying line, the speed of the wind, the skill of the flier, and the flight characteristics of the kite or kites.

## B. Center Window

The center of the wind window is directly downwind from the flier (horizontal center) and halfway to the top of the wind window at that location (vertical center).

## C. Precision Grid

The backdrop for each figure is a grid that is used as a reference for its correct size, shape, and location. The figures are drawn on a grid 100 units high and 200 units wide-100 units on either side of the horizontal center of the window. The size of a grid unit varies with the length of the flying line used. With 38 -meter ( 125 -foot) lines, a grid unit is about 0.3 meter ( 1 foot). Each 10 unit square on the grid with 38 -meter ( 125 -foot) lines would have roughly 3 -meter ( 10 -foot) sides. Grid lines at 10 -unit intervals are shown in the diagrams, but only where they are necessary to locate the figure within the grid.
NB: In sub-optimal conditions, it may not be possible to fly to all sections of the precision grid unless the flier moves back during the figure. Said another way, some of the precision grid may be outside the wind window.

## II. DIAGRAM

The compulsory figure diagram defines the size, shape, and location of each compulsory figure within the precision grid.

All text following in this item now applies only to Multi-Line Teams compulsories:
When there are fewer multi-line team members flying than there are kites shown in a diagram, the selection of kites will be one of the following:

- In numerical order, which means assign the kites flying to the kites in the diagram in 1-2-3 order.
- Evenly spaced and centered between the first and last kite, which means, using the positions of the first and last kites, evenly space the other kite or kites between them.

When there are more multi-line team members flying than there are kites shown in a diagram, the kites will be evenly spaced and centered. That means, using the center of all of the kites as shown in the diagram, arrange all the multi-line team's kites evenly around that center point.
The evenly spaced options are the default. When the numerical order is important, it will be specified in the explanation.

## III. EXPLANATION

## A. Scoring

Each compulsory is given a single score for the entire figure from the 'IN' call to the 'OUT' call. The score given reflects how closely the figure flown matches the diagram and satisfies other judging criteria.

## B. Explanation

If necessary, an explanation or clarification of the components will be provided. Additional remarks or comments about the compulsory and a list of additional components that the compulsory is meant to test may also be provided. This section is not meant to describe the compulsory figure in detail.

## C. Shorthand Notation Used in Descriptions

$<\quad$ as a prefix to a number, denotes a location to the left of the horizontal center of the precision grid.
$>\quad$ as a prefix to a number, denotes a location to the right of the horizontal center of the precision grid.
<0> denotes the horizontal center of the precision grid.
$\wedge$ as a prefix to a number, denotes a location above the bottom of the precision grid.

## IV.GLOSSARY OF TERMS

## A. Position within the Precision Grid

Position within the precision grid is the location of the entire compulsory in the precision grid. All figures are intended to be flown and placed as shown in the diagrams.

## B. Relative Placement of Components

Relative placement is the alignment of components within a figure. For any figure, all proportions, angles, traverses, turning points, etc should be executed and placed in relation to each other so that the flight path from "IN " to "OUT" traces the flight path as shown by the diagram

## C. Turns

All turns are crisp changes of the flight direction. An adjective may be used with the word "turn" to emphasize some aspect of the turn. If a change of direction is not intended to be a turn, it will be described as an arc or curve.

## D. Lines

All lines are straight unless otherwise noted. The term "straight line", while redundant, may be used for emphasis.

1. Horizontal Line

A horizontal line is flown parallel to the horizon.
2. Vertical Line

A vertical line is flown perpendicular to the horizon.
3. Parallel Lines

Parallel lines are an equal distance apart everywhere.

The qualifiers (horizontal, parallel, etc.) are used in the explanation sections to limit the focus to a particular line or lines.

## E. Launching

A launch is the transition of a kite from a stationary position on the ground into flight. The control of the kite during the launch and the stability of the flight after the launch are the most important aspects of a launch.

## F. Landing

A landing brings the kite to a controlled stop on the ground. A nose-first crash into the ground is not a landing. Unless otherwise indicated, no variety of landing is preferred over another.

## 1. Leading-Edge Landing

A leading-edge landing brings the kite to a controlled stop on the ground with all of one of the leading edges meeting the ground along its full length.

## 2. Two-Point Landing

For delta-shaped kites, a two-point landing brings the kite to a controlled stop on the ground resting on both wingtips at the same time. For kites with a single leading edge, a two-point landing brings the kite to a stop on the trailing edge.
a) Examples
(1) Snap Two-Point Landing

This is a combination of a snap stall and landing that happens as one movement.
(2) Stall Two-Point Landing

The kite is stalled close to the ground and then put down onto the ground directly.
(3) Spin Two-Point Landing

The kite is spun in a tight circle or part of a circle close to the ground and then put down onto the ground directly.

## 3. Belly Landing

A belly landing brings the kite to a controlled stop on its front (bridle side) with the nose pointing away from the pilot.

## G. Arc

The change of the direction of flight that follows some part of the circumference of a circle. An arc is distinguished from a curve, which does not have a constant radius.

## H. Ground Pass

A ground pass is horizontal flight close to the ground. For the purposes of the explanations herein, the maximum height of the lower wingtip off the ground is defined as half the distance between wingtips. Flying closer to the ground is not rewarded or penalised. When the ground is not horizontal, the height of a groundpass is measured from the highest point traversed.

## I. Nose

The nose is the forwardmost part of the kite in forward flight. For delta-shaped kites, it is the junction of the leading edges. For kites with a single leading edge, it is that leading edge. The coordinate positions shown in the diagrams are given for the nose of the kite unless otherwise indicated.

## J. Stall (Stop)

The kite comes to an obvious momentary stop.

1. Push Stall

A push stall stops the movement of the kite without changing the kite's orientation.

## 2. Snap Stall

A snap stall stops the movement of the kite and brings the kite into a nose-up orientation in one motion.

## K. Axel

An axel is a $360^{\circ}$ flat spin rotation of the kite with the front parallel to the ground. It starts and ends with the nose pointing toward the flier.

## L. Speed Control

For individual figures, speed control means maintaining a constant speed throughout the figure.

For pair and team figures, speed control also refers to the relative change of velocity among the kites needed to open or close distances between them as demanded by some figures. Speed control is a consideration in all compulsory figures.

## M.Spacing

For pair and team figures, spacing refers to the uniform distance maintained between kites. A change to the distance between kites may be necessary during a figure, but it is the uniformity of spacing that is important.
Spacing is a consideration in all pair and team compulsory figures.

## N. Circle

A circle is a continuous arc, ending at the same point as it began.

## O. Multi-line-Specific Terms

1. Diagonal Flight

The kite flies in a straight diagonal line with the kite in a constant orientation.

## 2. Inverted Flight

The kite flies in any direction with the nose pointed down.

## 3. Backward Flight

The kite flies in the opposite direction from the direction the nose is pointing. Backward flight is also inverted flight if the nose is pointing down.
4. Forward Flight

The kite flies in the direction the nose is pointing.
5. Rotation (Spin)

The kite rotates with a designated part of the kite as the center of rotation. The most common points of rotation are the center of the kite or one of its wingtips. Unless otherwise specified, rotations are stationary. That is, the point of rotation does not move.
6. Slide

The kite moves horizontally across the window with the nose pointing up (horizontal slide) or vertically in the window with the nose pointing to the left or right (vertical slide).
7. Inverted Slide

The kite moves horizontally across the window with the nose pointing down.

## V. COMPULSORY FIGURES

## A. Obsoleted Compulsory Figures (since ISKCB Version 2.1) <br> None

## B. New Compulsory Figures (since ISKCB Version 2.1)

None

## C. Changes to Compulsory Figures (since ISKCB Version 2. 1)

All text has been revised to combine the former "Critical Components" and "Other Components" under the new heading, "Judges will Particularly Consider."

MI22 has been clarified to state the arcs are to be flown in a forward direction per the IRBC Bulletin of 1 August 2007.

## D. Present Compulsory Figures Information

In the following items E, F, G, H, I and J are the presently approved compulsories for sanctioned competitions.
Any other compulsory figures used for sanctioned competitions must be approved by the IRBC and the respective sanctioning authority. This includes any text or graphical changes to present compulsory figures.

## E. Dual-line Individual Compulsory Figures

- DI 02 - Circle - 2005-07-07-text 2009-08-06
- DI 03 - Circle Over Diamond - 2005-07-07 - text 2009-08-06
- DI 05 - Lap and Snap - 2005-07-07-text 2009-08-06
- DI 07-Jump - 2005-07-07-text 2009-08-06
- DI 08-Pyramid - 2005-07-07-text 2009-08-06
- DI 09 - Octagon - 2005-07-07-text 2009-08-06
- DI 11 - Split Figure Eight - 2005-07-07 - text 2009-08-06
- DI 12 -Stops - 2005-07-07-text 2009-08-06
- DI 13 -Steps - 2005-07-07-text 2009-08-06
- DI 14-Register - 2005-07-07-text 2009-08-06
- DI 15-LSI - 2005-07-07-text 2009-08-06
- DI 16-Two Squares and Stalls - 2006-06-25-text 2009-08-06
- DI 17 - Wedge - 2006-06-25-text 2009-08-06
- DI 18 - Square Cuts - 2006-06-25-text 2009-08-06
- DI 19 - Launch, Circle, and Land 2P - 2006-06-25-text 2009-08-06



## DI 02 - Circle

Version 2005-07-07
Judges will Particularly Consider

- Circle
- Speed control
- Position within the precision grid
- IN/OUT at same location


## Explanation



## DI 03 - Circle Over Diamond

Version 2005-09-09
Judges will Particularly Consider

- Relative placement of components
- Relative size of components
- Parallel lines
- Angles
- Speed control


## Explanation

The circle is directly above the diamond.
The diameter of the circle is the same as the width and height of the diamond.


## DI 05 - Lap and Snap

Version 2005-07-07
Judges will Particularly Consider

- Parallel lines
- Two-point landing
- Arcs
- Right angle
- Relative placement of components
- Relative size of components


## Explanation

The landing is quick and executed close to the ground.
The downward arc on the left side of the window is directly under the IN.
The landing is in the center of the figure and the precision grid.


DI 07 - Jump
Version 2005-07-07
Judges will Particularly Consider

- Right angles
- Arc
- Straight lines
- Position within the precision grid
- Speed control


## Explanation



DI 08 - Pyramid
Version 2005-07-07
Judges will Particularly Consider

- Position within the precision grid
- Relative size of components
- Equal size of IN and OUT horizontal lines.
- Straight lines
- Speed control


## Explanation

The base angles are equal.

DI 09 - Octagon


DI 09 - Octagon
Version 2005-07-07

## Judges will Particularly Consider

- Position within the precision grid
- Relative size of components
- Speed control
- Equal size of IN and OUT horizontal lines
- Parallel lines


## Explanation

All angles of the octagon are equal.


## DI 11 - Split Figure Eight

Version 2005-08-01
Judges will Particularly Consider

- Relative placement of components
- Speed control
- Position within the precision grid
- Straight lines
- Arcs


## Explanation

The diagonal line is as shown.


## DI 12 - Stops

Version 2005-07-07

## Judges will Particularly Consider

- Stall
- Speed control
- Launch
- Relative placement of components
- Straight lines
- Position within the precision grid


## Explanation

2 push stalls are executed on the vertical line. 2 snap stalls are executed on the horizontal line.


- Horizontal lines
- Vertical lines
- Position within the precision grid
- Relative size of components
- Speed control


## Explanation



## DI 14 - Register

Version 2005-07-07

## Judges will Particularly Consider

- Relative placement of components
- Arc
- $90^{\circ}$ turns
- Position within the precision grid


## Explanation

DI 15 - LSI


DI 15-LSI
Version 2005-07-07
Judges will Particularly Consider

- Arcs
- Relative placement of components
- Lines
- $90^{\circ}$ turns


## Explanation



## DI 16 - Two Squares and Stalls

Version 2006-06-29

## Judges will Particularly Consider

- Relative Placement of Components
- Stalls
- Turns
- Position in the Precision Grid


## Explanation

IN at 50 left 10 vertical. Kite flies to 10 left and stalls. Kite files a square box $30 \times 30$ counterclockwise and continues horizontally to 30 right, turning up and flying to 80 vertical. Kite flies three sides of a square box $30 \times 30$ counterclockwise and stalls at 30 right 50 vertical. Kite flies up to 90 vertical. OUT


## DI 17-Wedge

Version 2006-06-29
Judges will Particularly Consider

- Position within the Precision Grid
- Relative Placement of Components
- Speed control
- Turns


## Explanation

The place where the kite is when the flyer calls out must be the same point where the first right angle was made.


## DI 18 - Square Cuts

Version 2006-06-29

## Judges will Particularly Consider

- Turns
- Relative Placement of Components
- Speed Control
- Position within the Precision Grid


## Explanation

Each square cut equals $20 \%$ of the vertical and horizontal window.
Turns are closely space.

## DI 19 - Launch, Circle, and Land 2P



DI 19 - Launch, Circle, and Land 2P
Version 2006-06-29
Judges will Particularly Consider

- Straight lines
- Two-Point landing
- Turns
- Speed Control
- Circle
- Position within the precision grid


## Explanation

Launch, right flank at 40\% vertical, circle, flank down at 50\% horizontal to a Two-Point Landing.

## F. Dual-line Pair Compulsory Figures

- DP 03 - Pair Circles Over Diamonds - 2005-07-07 - text 2009-08-06
- DP 06 - Inverted Eight with Landing - 2005-07-07 - text 2009-08-06
- DP 07-H - 2005-07-07 - text 2009-08-06
- DP 08-Twist - 2005-07-07 - text 2009-08-06
- DP 09 - The Cliff - 2005-07-07 - text 2009-08-06
- DP 11 - Meet Again - 2005-07-07 - text 2009-08-06
- DP 12 - Pair Stops - 2005-07-07 - text 2009-08-06
- DP 14-2 Squares - 2005-07-07 - text 2009-08-06
- DP 15 - Thread and Roll - 2005-07-07 - text 2009-08-06
- DP 16 - Pair Square Cuts and Land - 2006-06-30 - text 2009-08-06
- DP 17 - Pair Jump with Rolls - 2006-06-30 - text 2009-08-06
- DP 18 - Pair Launch, Circle, and Land 2P - 2006-06-30 - text 2009-08-06



## DP 03 - Pair Circles Over Diamonds

Version 2005-09-09
Judges will Particularly Consider

- Relative placement of components
- Relative size of components
- Parallel lines
- Angles
- Speed control


## Explanation

The circles are directly above the diamonds.
The diameters of the circles are the same as the width and height of the diamonds.

DP 06 - Inverted Eight with Landing


## DP 06 - Inverted Eight with Landing

Version 2005-09-09
Judges will Particularly Consider

- Relative placement of components
- Landing
- Position within the precision grid
- Parallel lines
- Straight lines


## Explanation

Two-Point landing


DP 07 - H
Version 2005-07-07

## Judges will Particularly Consider

- Parallel lines
- Relative placement of components
- Spacing
- Position within the precision grid
- Arcs


## Explanation



## DP 08 - Twist

Version 2005-07-07
Judges will Particularly Consider

- Timing
- Parallel lines
- Speed control
- Right angles


## Explanation



DP 09 - The Cliff
Version 2005-07-07
Judges will Particularly Consider

- Speed control
- Spacing
- Timing
- Circles
- Straight lines
- Angles


## Explanation



DP 11 - Meet Again
Version 2005-07-07
Judges will Particularly Consider

- Circles
- Speed control
- Timing
- Relative placement of components


## Explanation



## DP 12 - Pair Stops

Judges will Particularly Consider

- Stall
- Speed control
- Launch
- Relative placement of components
- Straight lines
- Position within the precision grid


## Explanation

2 push stalls are executed on the vertical line.
2 snap stalls are executed on the horizontal line.

DP 14-2 Squares


## DP 14-2 Squares

Version 2005-07-07

## Judges will Particularly Consider

- Turns
- Timing
- Relative size of components
- Straight lines


## Explanation



DP 15 - Thread and Roll
Version 2005-07-07

## Judges will Particularly Consider

- Lines
- Relative placement of components
- Timing
- Position within the precision grid


## Explanation



## DP 16 - Pair Square Cuts and Land

## Judges will Particularly Consider

- Turns
- Two-Point Landing
- Relative size of components
- Position within the Precision Grid
- Speed Control


## Explanation

Each square cut equals $20 \%$ of the vertical and horizontal window.
Turns are closely spaced.


## DP 17 - Pair Jump with Rolls

Version 2006-06-30

## Judges will Particularly Consider

- Circles
- Speed Control
- Parallel lines
- Turns
- Position within the precision grid


## Explanation

Circles must be the same size and the exit of the circle from the left kite must be on the same line as the entrance of the circle from the right kite.


DP 18 - Pair Launch, Cricle, and Land 2P
Version 2006-06-30

## Judges will Particularly Consider

- Straight lines
- Two-Point Landings
- Turns
- Speed Control
- Circles
- Position within the precision grid


## Explanation

Launch, right flank at $40 \%$ vertical, circle, flank down resectively at 60 and $40 \%$ horizontal to a Two-Point Landings.

## G. Dual-line Team Compulsory Figures

- DT 02 - Pick-up Sticks - 2005-07-07 - text 2009-08-06
- DT 03 - Follow, Flank Up, and Square - 2005-07-07 - text 2009-08-06
- DT 04 - Team Hairpin - 2011-12-05 - text 2011-12-05
- DT 05-Arch de Triomph - 2005-07-07 - text 2009-08-06
- DT 07 - Sorted Rectangle - 2005-07-07 - text 2009-08-06
- DT 08 - The Basket - 2005-07-07 - text 2009-08-06
- DT 10 - Team Diamonds - 2005-07-07 - text 2009-08-06
- DT 11-Cascade - 2005-07-07 - text 2009-08-06
- DT 12 - Loops and Vertical Threads - 2005-07-07 - text 2009-08-06
- DT 14 - HaveFun - 2005-07-07 - text 2009-08-06
- DT 15 - Solaris - 2005-07-29 - text 2009-08-06
- DT 16 - Team Square Cuts - 2011-12-05 - text 2011-12-05


## DT 02 - Pick-up Sticks (3 man team)



DT 02 - Pick-up Sticks
Version 2006-06-30
Judges will Particularly Consider

- Relative placement of components
- Speed control
- Straight lines
- Landing


## Explanation




DT 03 - Follow, Flank Up, and Square
Version 2005-07-07

## Judges will Particularly Consider

- Parallel lines
- Right angles
- Relative placement of components
- Timing


## Explanation





## Explanation

DT 04 - Team Hairpin (4 man team)


DT 04 - Team Hairpin (5 man team)



## DT 05 - Arch de Triomph

Version 2005-07-07

## Judges will Particularly Consider

- Speed control
- Arcs
- Relative placement of components
- Position within the precision grid
- Timing


## Explanation



DT 05 - Arch de Triomph (5 man team)



## DT 07 - Sorted Rectangle

Version 2006-06-30

## Judges will Particularly Consider

- Timing
- Relative placement of components
- Ground pass
- Parallel lines


## Explanation

Kites come down from the outside of the window and turn toward the center into a ground pass.
A zipper-merge is performed as the kites turn to go up the center of the window. Kites alternate going left and right into rectangles that meet back at center window.


DT 07 - Sorted Rectangle (5 man team)



DT 08 - The Basket
Version 2005-07-07
Judges will Particularly Consider

- Speed control
- Spacing
- Timing
- Right angles
- Parallel lines


## Explanation



## DT 08 - The Basket (5 man team)




## DT 10 - Team Diamonds

Version 2006-06-30
Judges will Particularly Consider

- Timing
- Relative placement of components
- Spacing
- Right angles


## Explanation




## DT 11 - Cascade

Version 2006-06-30

## Judges will Particularly Consider

- Speed control
- Position within the precision grid
- Spacing
- Parallel lines


## Explanation

Smooth transitions from horizontal to vertical and again to horizontal. All kites when flying down should be on the same diagonal line just before the first kite flies out and after the the last kite has already flown into the down flight.




## DT 12 - Loops and Vertical Threads

Version 2006-06-30

## Judges will Particularly Consider

- Circles
- Relative placement of components
- Speed control
- Position within the precision grid
- Parallel lines


## Explanation





## DT 14 - HaveFun

Version 2005-08-01
Judges will Particularly Consider

- Timing
- Landing
- Lines
- Turns
- Arcs


## Explanation

Kites are to be horizontal to each other through the entire maneuver. Landing is to be 2-point; entry will be from a clockwise direction.


DT 14 - HaveFun ( 5 man team)



DT 15 - Solaris
Version 2006-06-30

## Judges will Particularly Consider

- Speed control
- Timing
- Circle


## Explanation

No matter how many kites are flown:

- A kite flying IN will fly OUT where the third kite clockwise has flown IN.
- Their IN segments meeting with the circle must be equally spaced from each other.



## DT 16 - Team Square Cuts (3 man team)



## DT 16 - Team Square Cuts

Version 2011-12-05

## Judges will Particularly Consider

- Syncronicity of turns
- Position within the precision grid
- Relative placement of the components


## Explanation

Each square cut equals $20 \%$ of the vertical and horizontal window, turns are closely spaced. When flying down, all kites should be in a horizontal line. Kites should maintain even spacing throughout.

DT 16 - Team Square Cuts (4 man team)


DT 16 - Team Square Cuts (5 man team)


## H. Multi-line Individual Compulsory Figures

- MI 02 - Ladder Up - 2005-07-07 - text 2009-08-06
- MI 03 - Steps and Turns - 2005-07-07-text 2009-08-06
- MI 04 - Two Down - 2005-07-07 - text 2009-08-06
- MI 07-Arc Circle - 2005-07-07-text 2009-08-06
- MI 08-Camel Back - 2005-07-07 - text 2009-08-06
- MI 09-Clock Tower - 2005-07-07-text 2009-08-06
- MI 13-Z Pass - 2005-07-07-text 2009-08-06
- MI 15 - Pivots - 2005-07-07 - text 2009-08-06
- MI 16 - Lollypop - 2005-07-07 - text 2009-08-06
- MI 17-Reverse Octagon - 2006-06-24 - text 2009-08-06
- MI 18-Roman Ten - 2006-06-30 - text 2009-08-06
- MI 19 - Bumps - 2006-06-30 - text 2009-08-06
- MI 20 - Lift - 2006-06-30 - text 2009-08-06
- MI 21 - Diamond - 2006-06-30 - text 2009-08-06
- MI 22 - The Felix - 2006-06-30 - text 2009-08-06


MI 02 - Ladder Up
Version 2005-08-01

## Judges will Particularly Consider

- Rotation
- Position within the precision grid
- Relative placement of components
- Parallel lines


## Explanation

The kite rotates forward around one wingtip after the other as it climbs.
The 1st rotation is counterclockwise, the 2nd clockwise, the 3rd counterclockwise, and the 4th clockwise.
The position of the kite after each rotation is determined by the width of the kite. Therefore, the vertical position of the kite at the end of each rotation and the last horizontal line are undefined.


MI 03 - Steps and Turns
Version 2005-08-01

## Judges will Particularly Consider

- Relative placement of components
- Rotation
- Straight lines
- Position within the precision grid
- Backward flight


## Explanation

The kite rotates $90^{\circ}$ clockwise around its center at each change of direction.


## MI 04 - Two Down

Version 2005-07-07

## Judges will Particularly Consider

- Parallel lines
- Inverted flight
- Center rotation
- Speed control


## Explanation



## MI 07 - Arc Circle

Version 2005-07-07
Judges will Particularly Consider

- Circle
- Backward flight
- Arc
- Launch
- Landing


## Explanation



MI 08 - Camel Back
Version 2005-07-07
Judges will Particularly Consider

- Arcs
- Backward flight
- Speed control
- Launch
- Landing
- Straight lines


## Explanation



## MI 09 - Clock Tower

Version 2005-08-01

## Judges will Particularly Consider

- Center rotation
- Straight line
- Speed control


## Explanation

Both $360^{\circ}$ rotations are done in eight individual $45^{\circ}$ steps.
The first/top rotation is clockwise.
The second/bottom rotation is counterclockwise.


## MI 13 - Z Pass

## Judges will Particularly Consider

- Diagonal flight
- Horizontal line
- Speed control
- Position within the precision grid


## Explanation



## MI 15 - Pivots

Version 2006-06-30

## Judges will Particularly Consider

- Rotation
- Horizontal line
- Inverted slide
- Backward flight
- Slide
- Forward flight


## Explanation

The kite flies to each position in the drawing, stops, rotates, and continues. The stops must be distinct.
The first rotation is counterclockwise. All other rotations are clockwise.


## MI 16 - Lollypop

Version 2005-07-07

## Judges will Particularly Consider

- Inverted flight
- Diagonal flight
- Position within the precision grid
- Circle


## Explanation

The circle is flown only once.
The direction the circle is flown is the competitor's choice.


## MI 17 - Reverse Octagon

Version 2006-07-20

## Judges will Particularly Consider

- Backward Flight
- Speed Control
- Position within the Precision Grid
- Turns


## Explanation

Entire compulsory is flown in reverse, kite orientation changes accordingly at each turn.
Speed should remain consistent throughout the entire compulsory.
Each of the eight sides of the octagon should be of equal length.


MI 18 - Roman Ten
Version 2006-06-30
Judges will Particularly Consider

- Diagonal Flights
- Slides
- Position within the Precision Grid
- Speed Control


## Explanation

The $1^{\text {st }}$ rotation is $45^{\circ}$ clockwise. The $2^{\text {nd }}$ rotation is $45^{\circ}$ counterclockwise. The $3^{\text {rd }}$ rotation is $45^{\circ}$ counterclockwise and the last rotation is $45^{\circ}$ clockwise.


## Explanation

Three identically shaped and symmetrical arcs will be flown. The $1^{\text {st }}$ will be flown forwards. The $2^{\text {nd }}$ will be flown backwards. The $3^{\text {rd }}$ will be flown forwards. All landings will be smooth and clean.


MI 20 - Lift
Version 2006-06-30
Judges will Particularly Consider

- Vertical Line
- Backward Flight
- Speed Control


## Explanation

IN is at center of the grid on the ground. Kite flies up and backwards in a straight vertical line at a constant speed to $90 \%$, and then stops. Kite then flies forwards and down at the same speed to $5 \%$ and hovers. OUT.


MI 21 - Diamond
Version 2006-06-30

## Judges will Particularly Consider

- Rotations
- Relative placement of the components
- Lines
- Speed control


## Explanation

$1^{\text {st }}$ rotation is $45^{\circ}$ counterclockwise.
$2^{\text {nd }}$ rotation is $270^{\circ}$ counterclockwise.
$3^{\text {rd }}$ rotation is $270^{\circ}$ counterclockwise.
$4^{\text {th }}$ rotation is $450^{\circ}$ clockwise.
$5^{\text {th }}$ rotation is $135^{\circ}$ clockwise.


## MI 22 - The Felix

Version 2006-06-30
Judges will Particularly Consider

- Arcs
- Speed Control
- Relative placement of components
- Rotation
- Position within the precision grid


## Explanation

The arcs will be flown in aforward direction.
IN is at center of the grid on the ground. The kite flies vertically to $10 \%$ and stops. The kite flies in an upward arc, vertically and to the left, to $40 \%$ and stops. The kite then flies an upward arc, vertically and to the right, to $70 \%$ and stops. The kite then rotates $180^{\circ}$ clockwise and retraces the previous track, stopping at $40 \%$ continuing down to $10 \%$ and stops. The kite then slides vertically down to land on the right wing tip in the center of the grid. OUT
I. Multi-line Pair Compulsory Figures

- MP 01-Qisses - 2005-07-07 - text 2009-08-06
- MP 03 - Quadouble-S - 2005-07-07 - text 2009-08-06
- MP 04 - Two Down - 2005-07-07 - text 2009-08-06
- MP 05 - Sticky Wicket - 2005-07-07 - text 2009-08-06
- MP 06 - Peaks - 2005-07-07 - text 2009-08-06
- MP 07-Circles and Slides - 2005-07-07-text 2009-08-06
- MP 08-Double Diamonds - 2005-07-07-text 2009-08-06
- MP 09 - Lollypops - 2005-07-07-text 2009-08-06
- MP 10 - Parallel Boxes - 2005-07-07 - text 2009-08-06
- MP 11 - Triangle Split - 2005-07-07 - text 2009-08-06
- MP 12 - Split Square - 2005-07-07 - text 2009-08-06
- MP 13 - Pair Pivots - 2006-06-30 - text 2009-08-06


MP 01 - Qisses
Version 2005-07-07
Judges will Particularly Consider

- Relative placement of components
- Speed control
- Position within the precision grid
- Spacing


## Explanation



## MP 03 - Quadouble-S

Version 2005-07-07
Judges will Particularly Consider

- Arcs
- Spacing
- Inverted flight
- Position within the precision grid
- Speed control


## Explanation



## MP 04 - Two Down

Version 2005-07-07
Judges will Particularly Consider

- Speed control
- Spacing
- Position within the precision grid
- Straight lines
- Center rotation


## Explanation

The rotation is $90^{\circ}$ clockwise.


MP 05 - Sticky Wicket
Version 2005-08-01
Judges will Particularly Consider

- Arc
- Spacing
- Center rotation
- Position within the precision grid
- Parallel lines


## Explanation

Kites \#1 and \#2 rotate clockwise $90^{\circ}$ simultaneously at <40 and <20 respectively.
Kites \#1 and \#2 rotate $90^{\circ}$ simultaneously at >20 and >40 respectively.
Kite \#1 flies inverted from <40 to <20.
Kite \#2 flies inverted from $>20$ to $>40$.


## MP 06 - Peaks

Version 2005-07-07
Judges will Particularly Consider

- Diagonal flight
- Relative placement of components
- Launch
- Landing
- Center rotation


## Explanation



MP 07 - Circles and Slides
Version 2005-07-07
Judges will Particularly Consider

- Circles
- Inverted slide
- Parallel lines
- Spacing


## Explanation

Both sets of circles are flown with the leading edge forward.
The circles on the left are flown first and go downward.

MP 08 - Double Diamonds


## MP 08 - Double Diamonds

## Judges will Particularly Consider

- Spacing
- Center rotation
- Parallel lines
- Straight lines
- Relative placement of components


## Explanation

Both kites make a $45^{\circ}$ left turn at ${ }^{\wedge} 10$ after launching.
Both kites make a $135^{\circ}$ right turn at ${ }^{\wedge} 10$ before landing.

MP 09 - Lollypops


MP 09 - Lollypops
Version 2005-07-07
Judges will Particularly Consider

- Diagonal flight
- Circles
- Inverted flight
- Parallel lines
- Spacing
- Relative placement of components


## Explanation

MP 10 - Parallel Boxes


## MP 10 - Parallel Boxes

Version 2005-07-07

## Judges will Particularly Consider

- Straight lines
- Speed control
- Parallel lines
- Spacing
- Relative placement of components
- Center rotation


## Explanation

After launch and before landing, both kites rotate $90^{\circ}$ left at ${ }^{\wedge} 10$.


## MP 11 - Triangle Split

## Judges will Particularly Consider

- Straight lines
- Position within the precision grid
- Timing
- Center rotations
- Backward flight
- Vertical slide


## Explanation



MP 12 - Split Square
Version 2005-07-07

## Judges will Particularly Consider

- Straight lines
- Relative placement of components
- Inverted slide
- Vertical slide
- Center rotations
- Position within the precision grid


## Explanation



## MP 13 - Pair Pivots

Version 2006-06-30

## Judges will Particularly Consider

- Rotations
- Straight lines
- Position within the precision grid
- Relative placement of components
- Speed control
- Backward flight
- Horizontal slide
- Landing


## Explanation

Kites fly parallel upward to $30 \%$ vertical, stop and rotate $180^{\circ}$ counterclockwise.
Kites slide right horizontally $30 \%$, stop and rotate $90^{\circ}$ clockwise.
Kites fly backwards $30 \%$, stop and and rotate $90^{\circ}$ clockwise.
Kites slide right horizontally $30 \%$, stop and and rotate $90^{\circ}$ clockwise.
Kites fly forwards $30 \%$, stop and and rotate $90^{\circ}$ clockwise.
Kites fly parallel forwards and downwards, making a simultaneous landing on the leading edge.

## J. Multi-line Team Compulsory Figures

- MT 01 - Cascade - 2005-07-07 - text 2009-08-06
- MT 02 - Follow, Slide, Roll - 2005-07-07 - text 2009-08-06
- MT 03 - Vertical Thread and Rotate - 2005-07-07 - text 2009-08-06
- MT 04 - Rainbow Slide - 2005-07-07 - text 2009-08-06
- MT 05-Two Down - 2005-07-07 - text 2009-08-06
- MT 06 - Steps and Turns - 2005-07-07-text 2009-08-06
- MT 07 - Arch du Carousel - 2005-07-07 - text 2009-08-06
- MT 08-Team Pivots - 2006-06-30 - text 2009-08-06
- MT 09 - The Basket - 2005-07-07-text 2009-08-06
- MT 11 - Solaris - 2005-07-29 - text 2009-08-06



## MT 01 - Cascade

Version 2005-07-07

## Judges will Particularly Consider

- Spacing
- Speed control
- Position within the precision grid
- Straight lines
- Center rotations


## Explanation

At the end of each downward vertical slide, each kite rotates $90^{\circ}$ and slides to the right.
Kite \#1 passes under kites \#2, \#3, and \#4 as it slides to the right.
Kite \#2 passes under kites \#3 and \#4 as it slides to the right.
Kite \#3 passes under kite \#4 as it slides to the right.


MT 02 - Follow, Slide, Roll
Version 2005-07-07
Judges will Particularly Consider

- Circles
- Spacing
- Straight lines
- Relative placement of components
- Inverted slide
- Center rotations


## Explanation

The circles are executed with the nose pointed outside the circle throughout.

MT 03 - Vertical Thread and Rotate


## MT 03 - Vertical Thread and Rotate

## Judges will Particularly Consider

- Straight lines
- Center rotations
- Spacing
- Relative placement of components


## Explanation

The center rotations at ${ }^{\wedge} 50$ are composed of two separate $90^{\circ}$ rotations with a stop before and after each.

MT 04 - Rainbow Slide


## MT 04 - Rainbow Slide

Version 2005-07-07

## Judges will Particularly Consider

- Spacing
- Speed control
- Position within the precision grid
- Center rotations


## Explanation

The launch is from a wingtip stand.
The $180^{\circ}$ center rotations are executed in unison and end in a stop.


## MT 05 - Two Down

Version 2005-07-07
Judges will Particularly Consider

- Speed control
- Spacing
- Vertical slide
- Center rotation
- Position within the precision grid
- Straight lines


## Explanation



## MT 06 - Steps and Turns

Version 2005-07-07
Judges will Particularly Consider

- Relative placement of components
- Center rotations
- Straight lines
- Position within the precision grid
- Backward flight


## Explanation

The kites rotate $90^{\circ}$ clockwise at each corner.

MT 07 - Arch du Carousel


MT 07 - Arch du Carousel
Version 2005-07-07

## Judges will Particularly Consider

- Arcs
- Speed control
- Relative placement of components
- Position within the precision grid
- Timing


## Explanation



## MT 08 - Team Pivots

Version 2006-06-30

## Judges will Particularly Consider

- Center rotations
- Straight lines
- Position within the precision grid
- Relative placement of components
- Speed control
- Backward flight
- Horizontal slide
- Landing


## Explanation

All rotations by all kites are executed simultaneously.
Kites fly parallel upward to $35 \%$ vertical, stop and rotate $180^{\circ}$ counterclockwise.
Kites slide right horizontally $35 \%$, stop and rotate $90^{\circ}$ clockwise.
Kites fly backwards $35 \%$, stop and and rotate $90^{\circ}$ clockwise.
Kites slide right horizontally $35 \%$, stop and and rotate $90^{\circ}$ clockwise.
Kites fly forwards $35 \%$, stop and and rotate $90^{\circ}$ clockwise.
Kites fly parallel forwards and downwards, making a simultaneous landing on the leading edge.

## MT 09 - The Basket



MT 09 - The Basket
Version 2005-07-07

## Judges will Particularly Consider

- Speed control
- Spacing
- Timing
- Right angles
- Parallel lines


## Explanation

All kites launch at the same time with the noses pointed at a $45^{\circ}$ angle to the right.
All kites reach the top right side of the basket at the same time.
All kites slide diagonally up to and down from <0> 190
All kites land at the same time with the noses pointed at a $45^{\circ}$ angle to the left.


## MT 11-Solaris

Version 2005-08-01

## Judges will Particularly Consider

- Speed control
- Timing
- Circle


## Explanation

No matter how many kites are flown:

- A kite flying IN will fly OUT where the third kite clockwise has flown IN.
- Their IN segments meeting with the circle must be equally spaced from each other. With 3 or 5 kites, kite \#1 enters at $0^{\circ}$.


All Japan Sport Kite Association


American Kitefliers Association


Sport Team and Competitive Kiting

