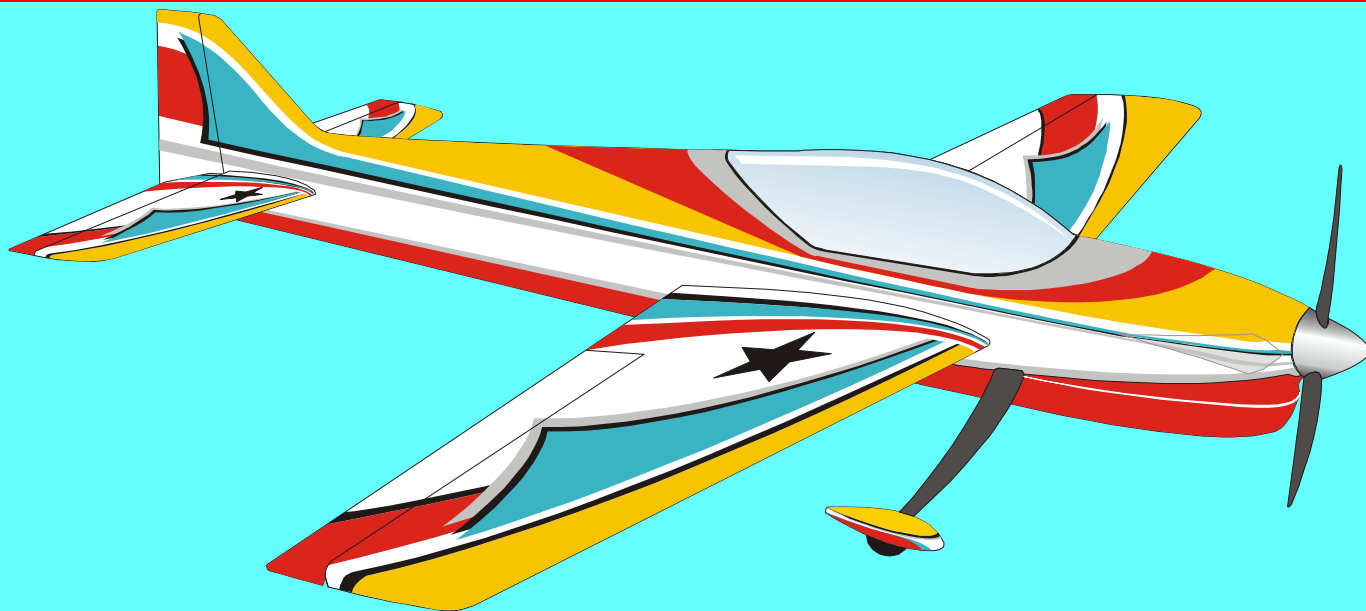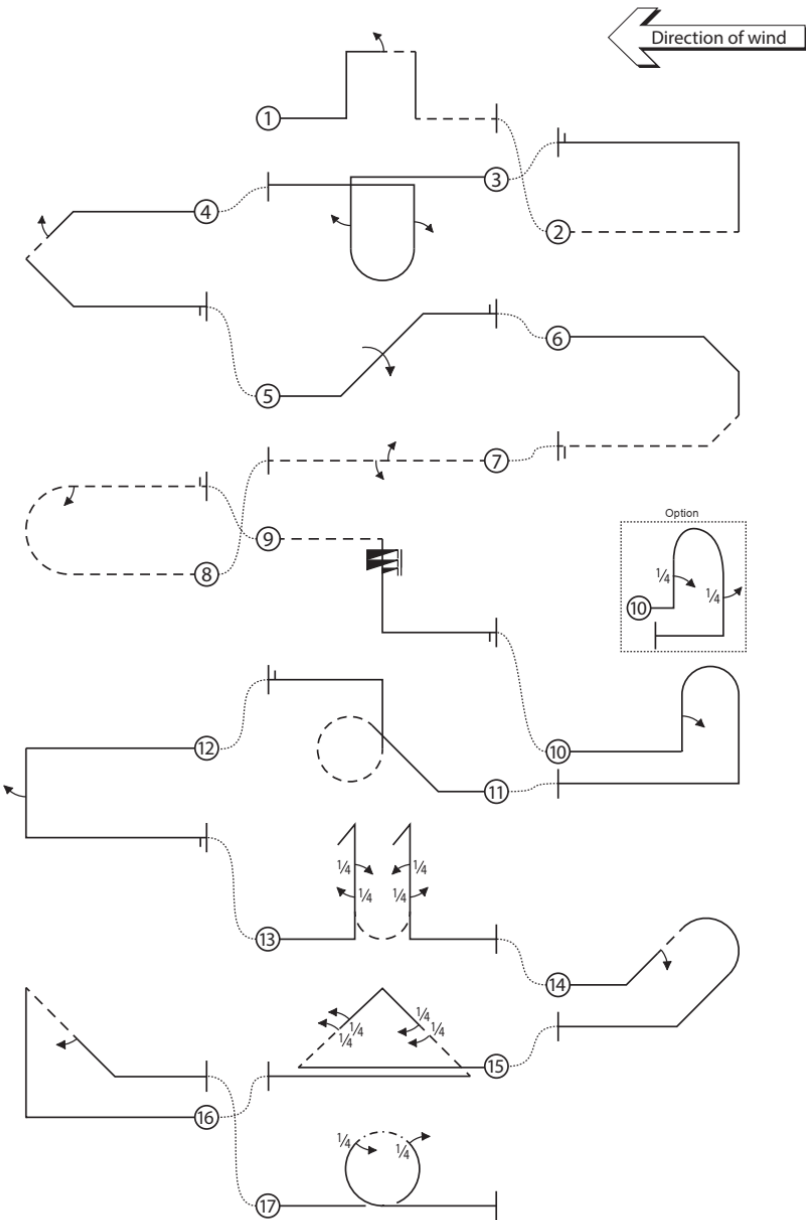# Flying and Judging F3A

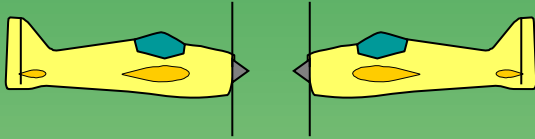**SCHEMATIC MANOEUVRE ILLUSTRATIONS**

SCHEDULE A-23

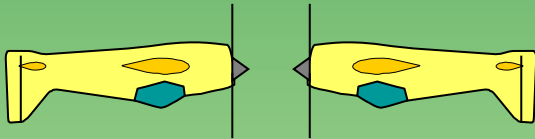ADVANCED SCHEDULE A-23 (2021-2023)

© CIAM F3 Aerobatics
Drawings by Ken Hirose
Feb. 2019
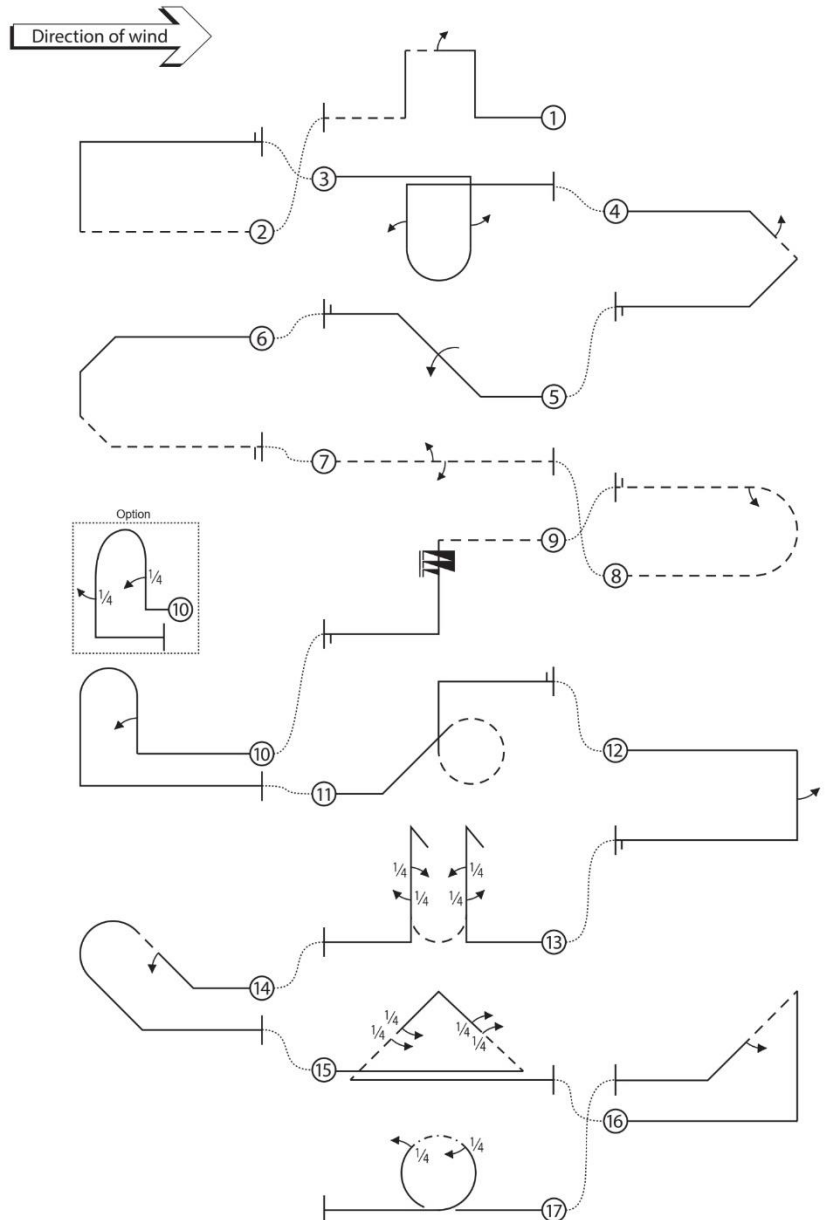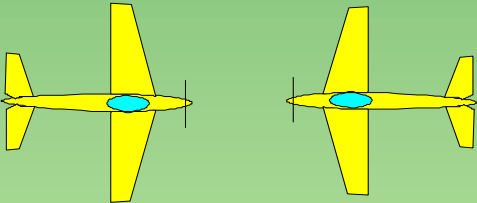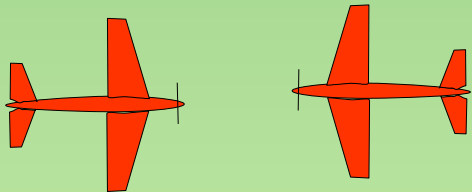
Explanations:

Aircraft upright

Aircraft inverted

Aircraft in Knife-Edge
View from Top

Aircraft in Knife-Edge
View from Below

Take-off procedure
(not judged, not scored)
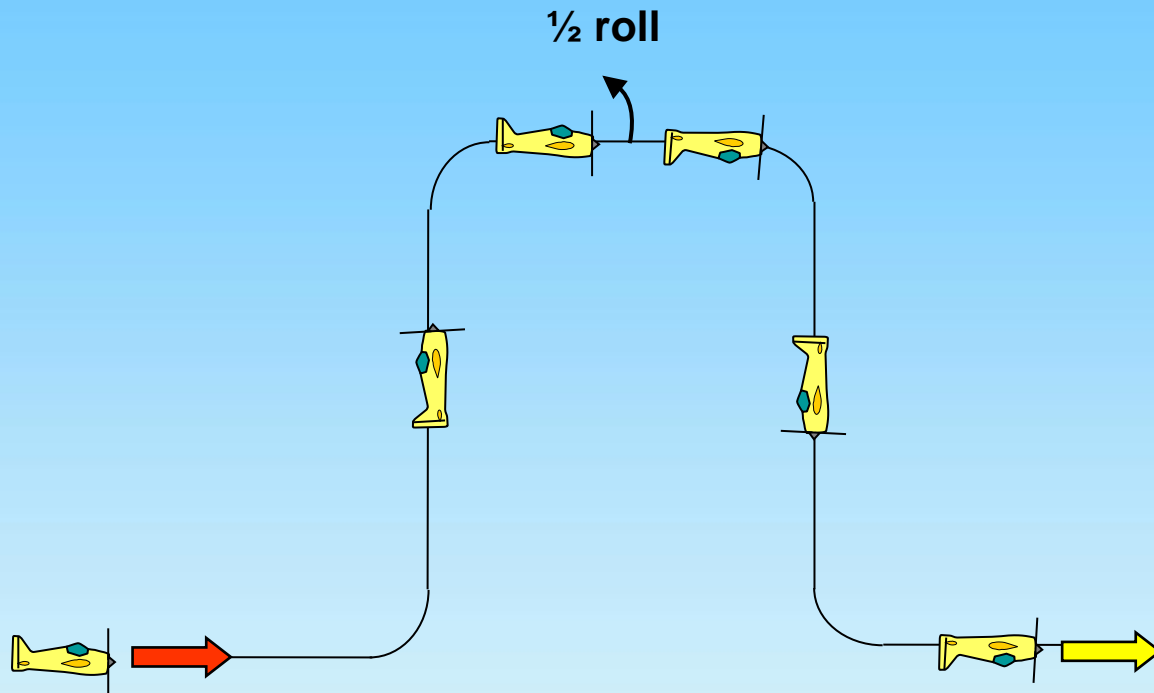
wind
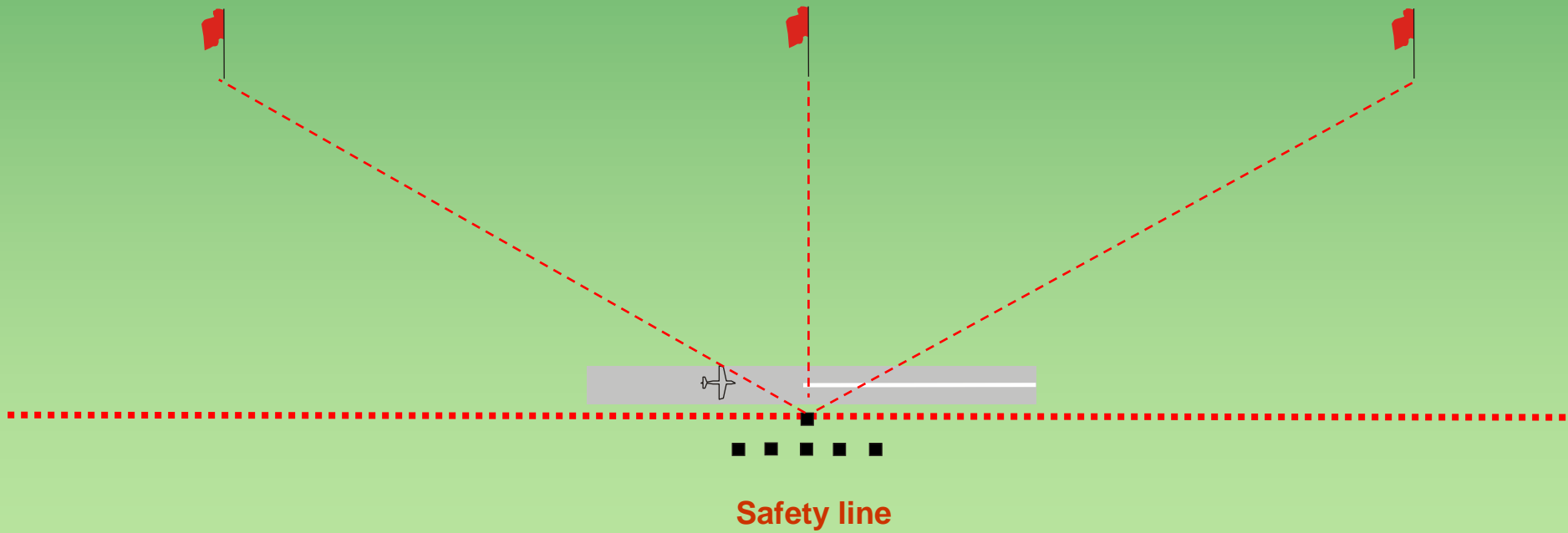
Safety line

A-23.01 Top Hat with half roll on top
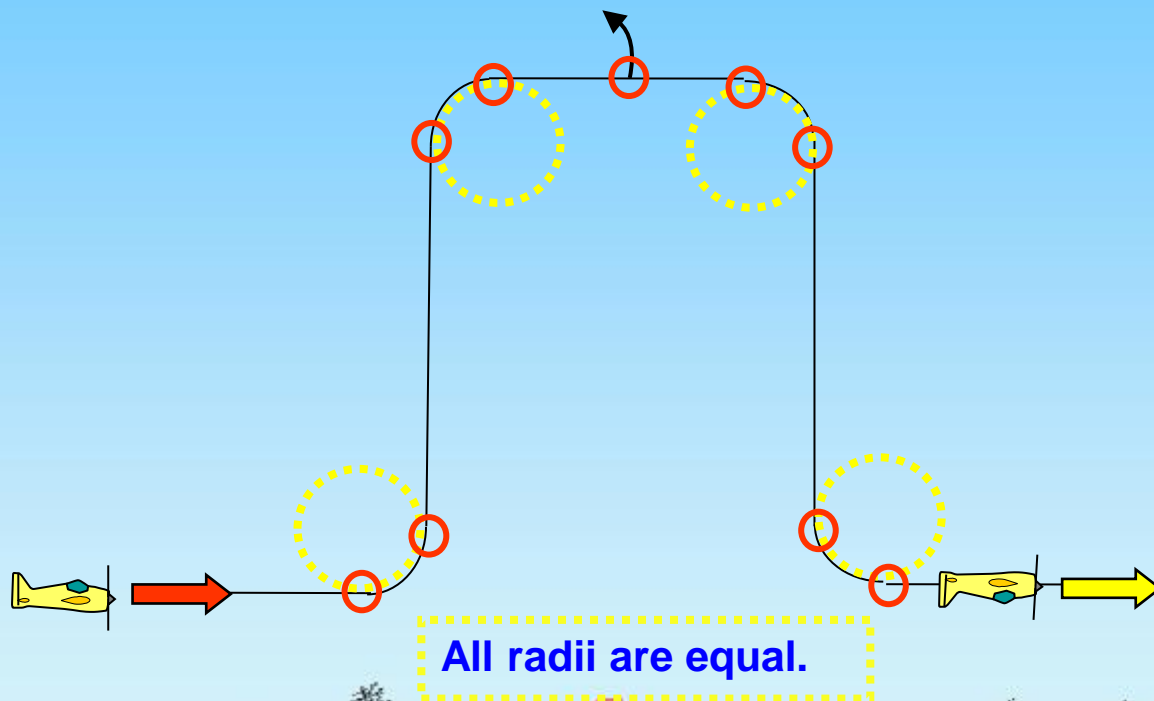
½ roll

From upright pull through a quarter loop into a vertical upline, push through a quarter loop, perform a half roll, pull through a quarter loop into a vertical downline, push through a quarter loop, exit inverted.
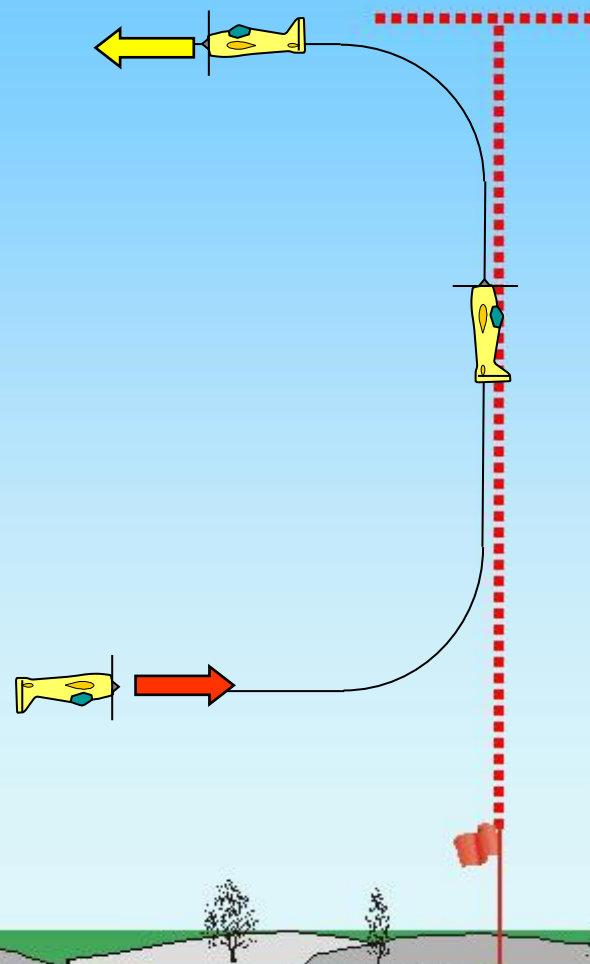
A-23.01 Top Hat with half roll on top

½ roll on middle of the line.

All radii are equal.
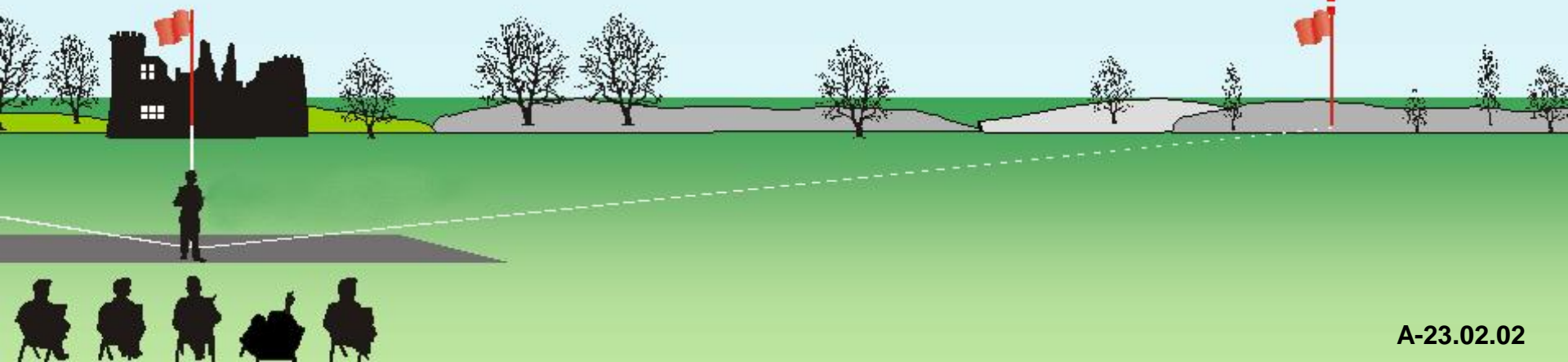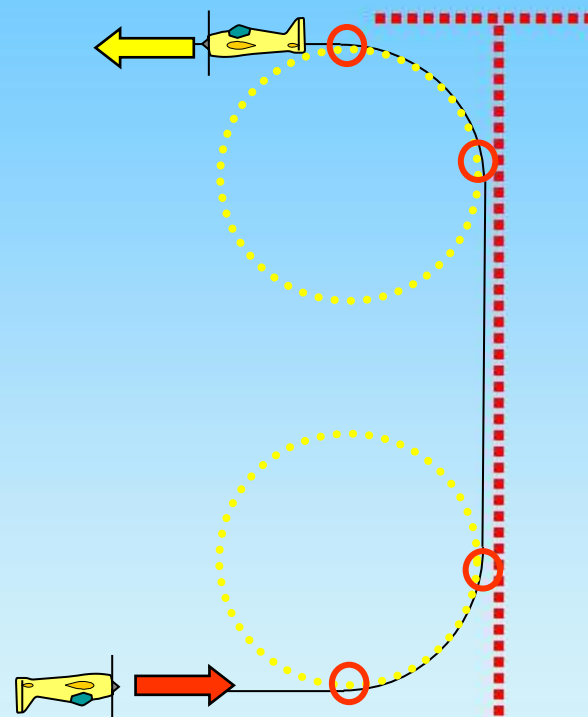
A-23.02 Half Square Loop

From inverted, push through a quarter loop into a vertical upline, push through a quarter loop, exit upright.

A-23.02.01

A-23.02 Half Square Loop

All radii are equal.

A-23.02.02

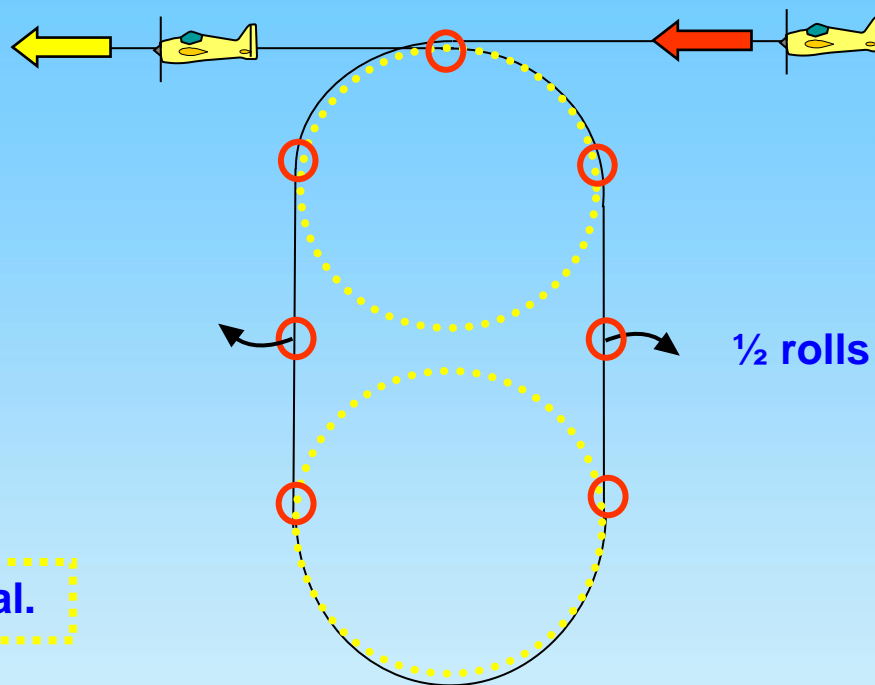# A-23.03 Push-Pull-Push Humpty-Bump with half roll, half roll

½ roll

½ roll
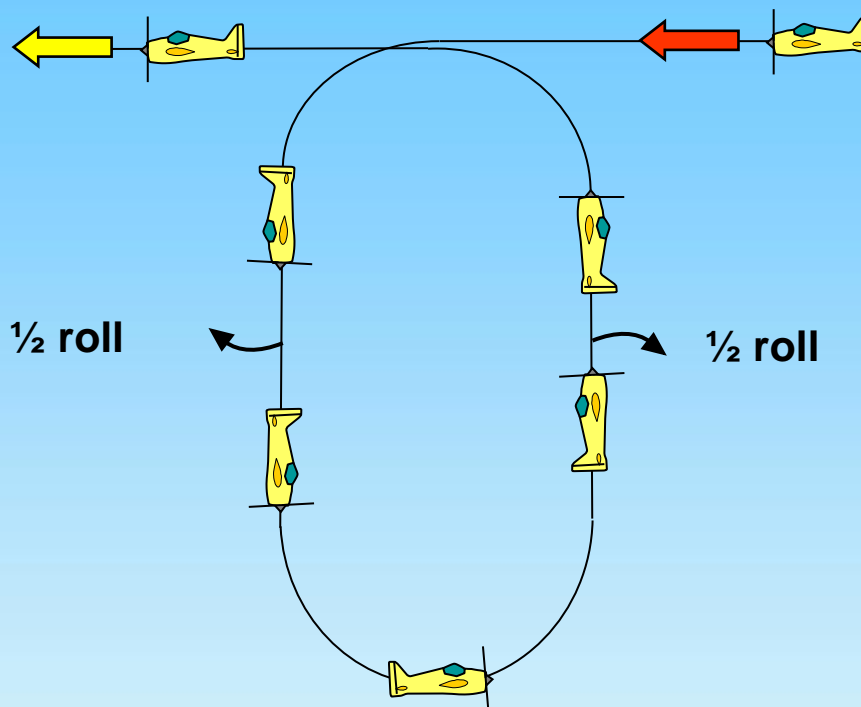
From upright, fly past center push through a quarter loop into a vertical downline, perform a half roll, pull through a half loop into a vertical upline, perform a half roll, push through a quarter loop, exit upright.

A-23.03 Push-Pull-Push Humpty-Bump with half roll, half roll

½ rolls on middle of the line.

All radii are equal.

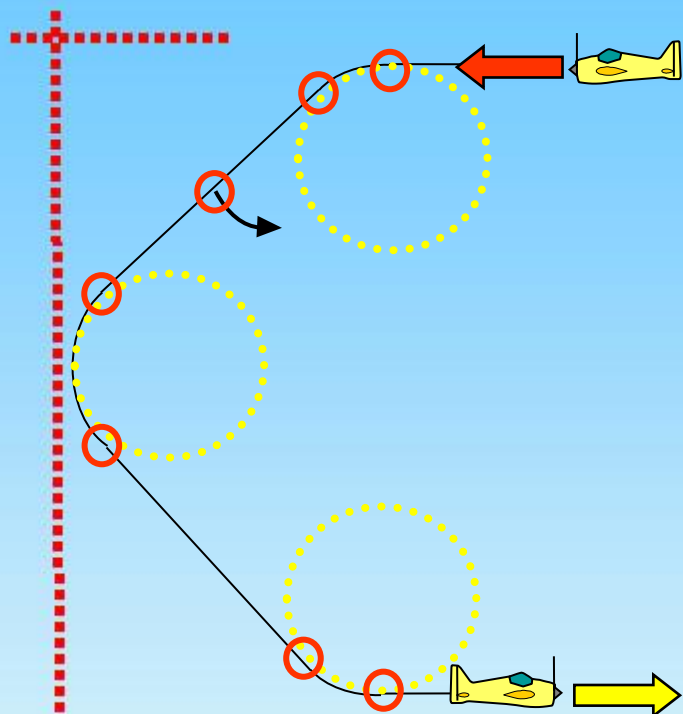# A-23.04 Half Square Loop on Corner with half roll

½ roll
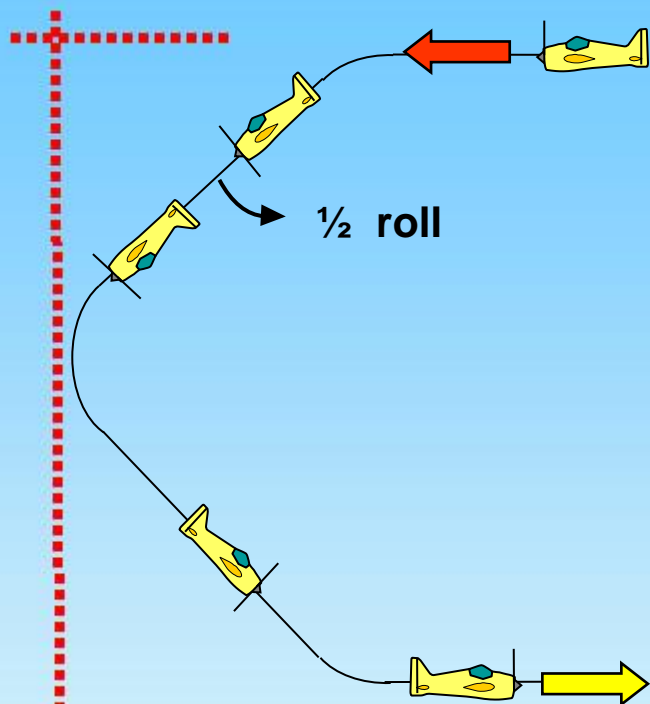
From upright, push through a one eighth loop into a forty five degree downline, perform a half roll, pull through a quarter loop into a forty five degree downline, pull through a one eighth loop, exit upright.

A-23.04 Half Square Loop on Corner with half roll

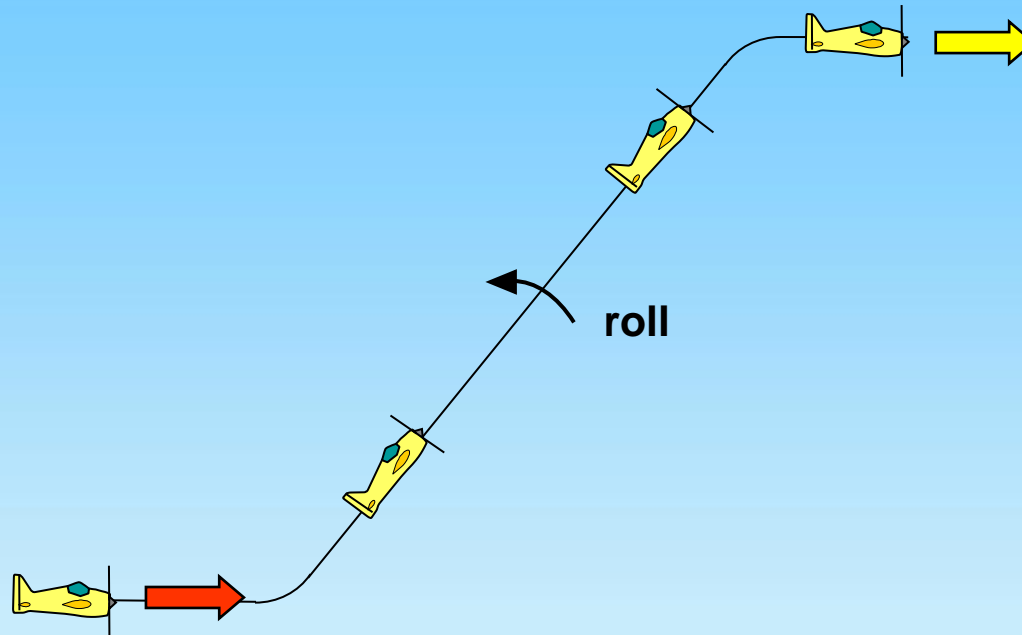½ roll on middle of the line.

All radii are equal.
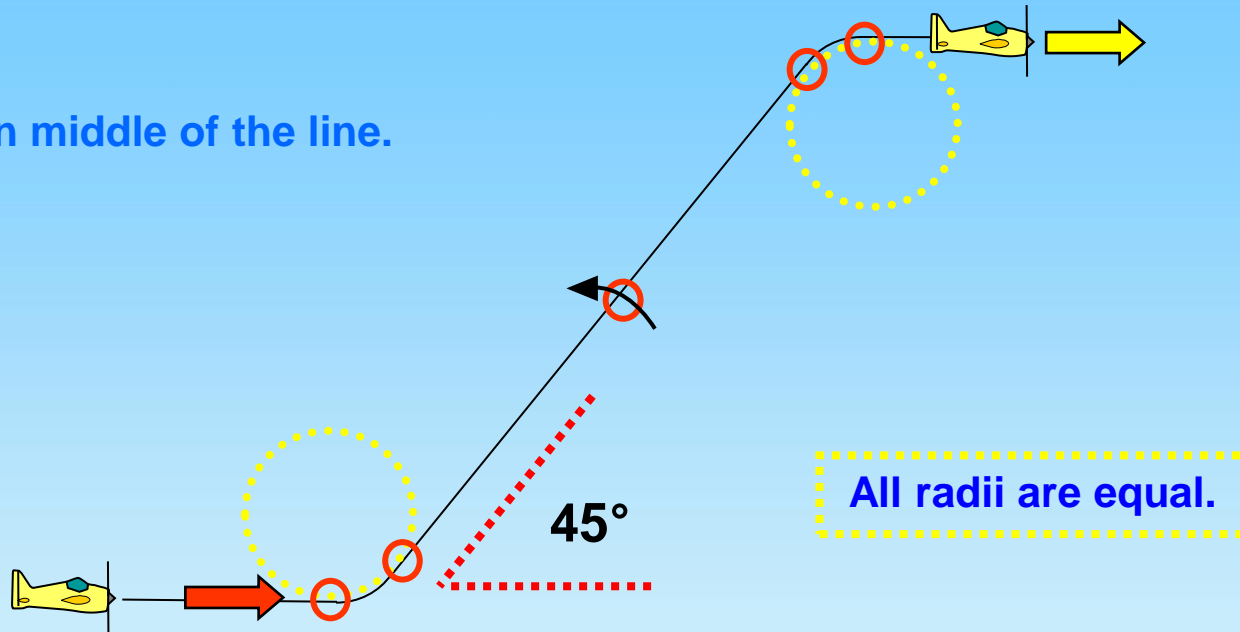
A-23.05 Forty Five degree Upline, with roll

roll

From upright, pull through a one eighth loop into a forty five degree upline, perform a roll, push through a one eighth loop, exit upright.
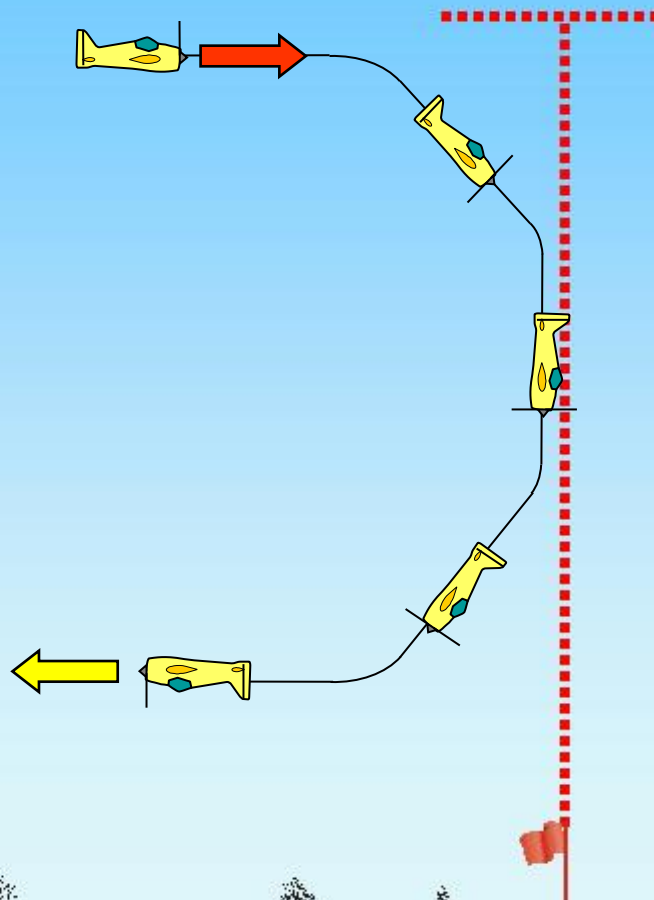
A-23.05.01

A-23.05 Forty Five degree Upline, with roll

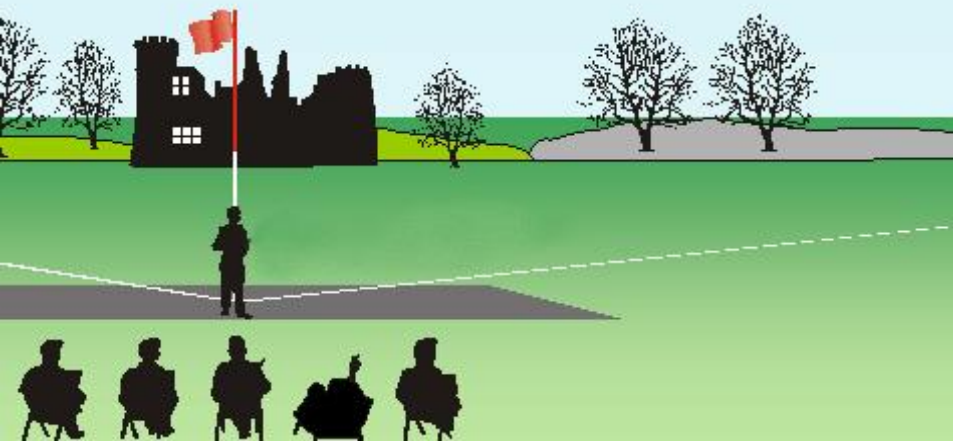**Roll on middle of the line.**

45°

All radii are equal.

A-23.06 Half Eight Sided Loop

From upright push through a one eighth loop into a forty five degree downline, push through a one eighth loop into a vertical downline, push through a one eighth loop into a forty five degree downline, push through a one eighth loop, exit inverted.
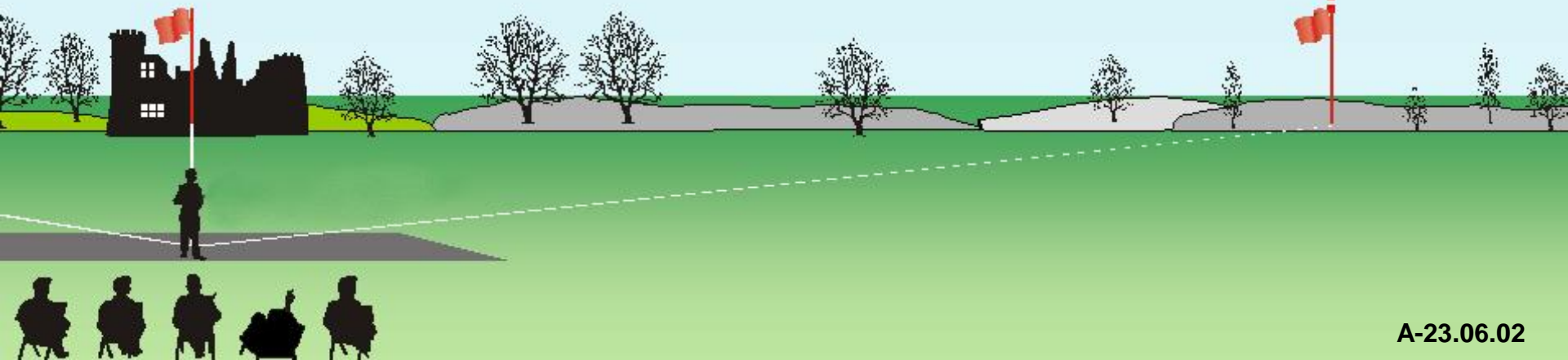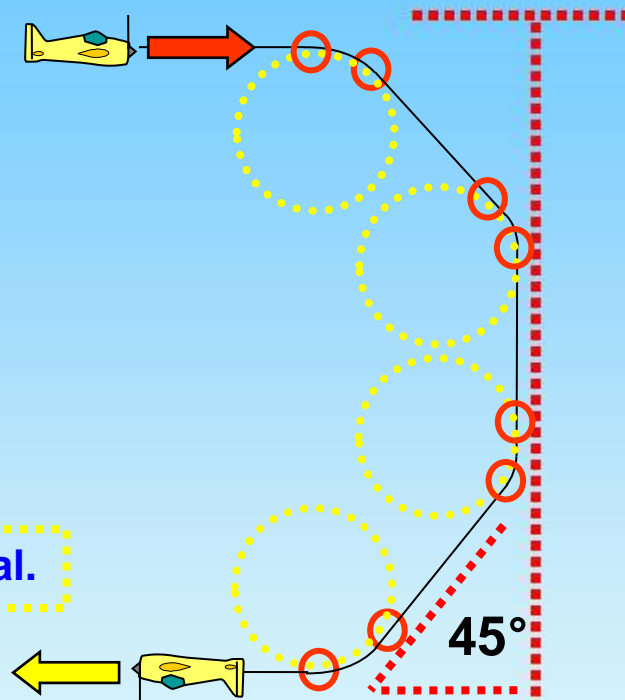
A-23.06 Half Eight Sided Loop

45° lines and vertical line
must be of equal length.

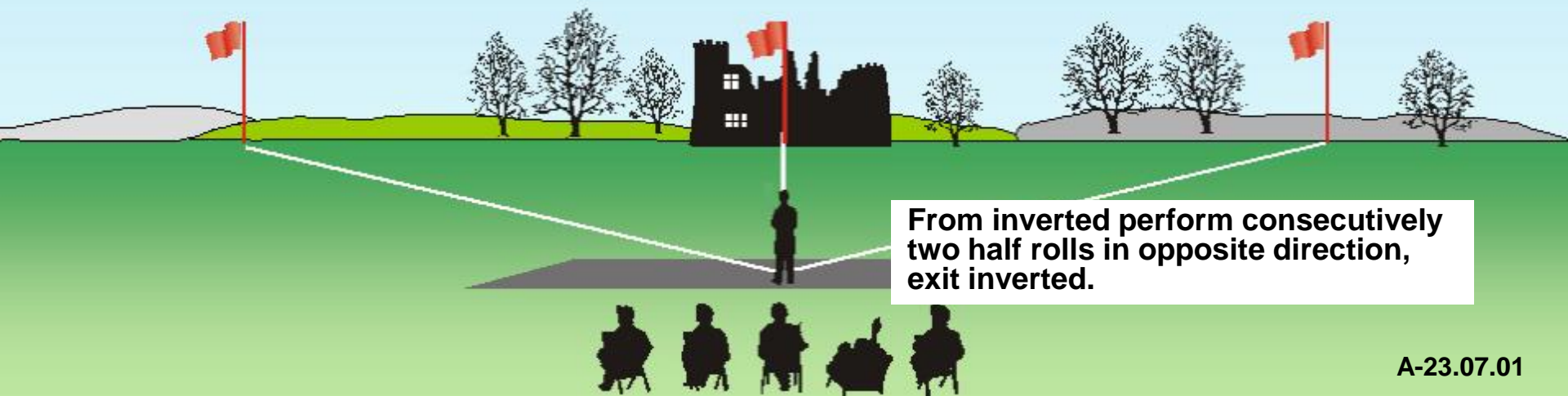All radii are equal.

45°

A-23.07 Roll Combination with two consecutive half rolls in opposite direction

½ roll

½ roll

From inverted perform consecutively two half rolls in opposite direction, exit inverted.
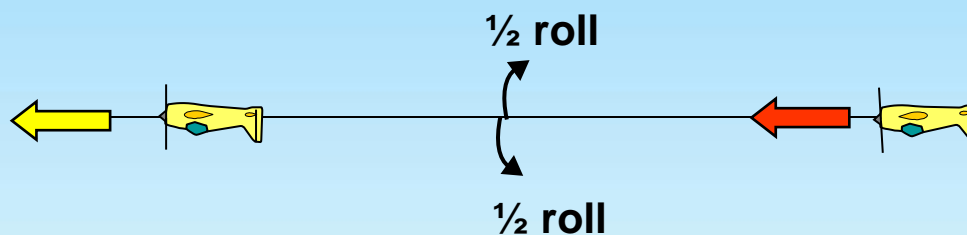
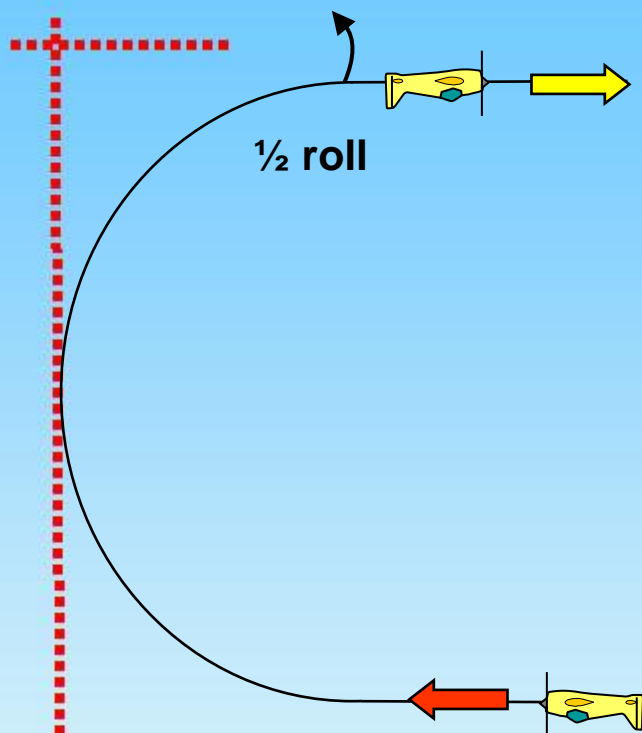A-23.07 Roll Combination with two consecutive half rolls in opposite direction

Between rolls and part rolls in opposite direction there must be no line.
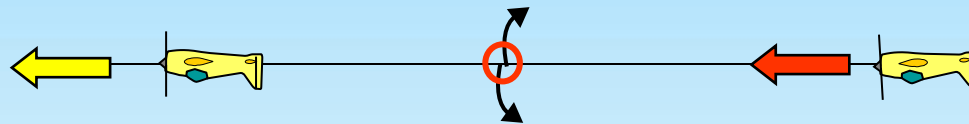
A-23.08 Pushed Immelman Turn with half roll

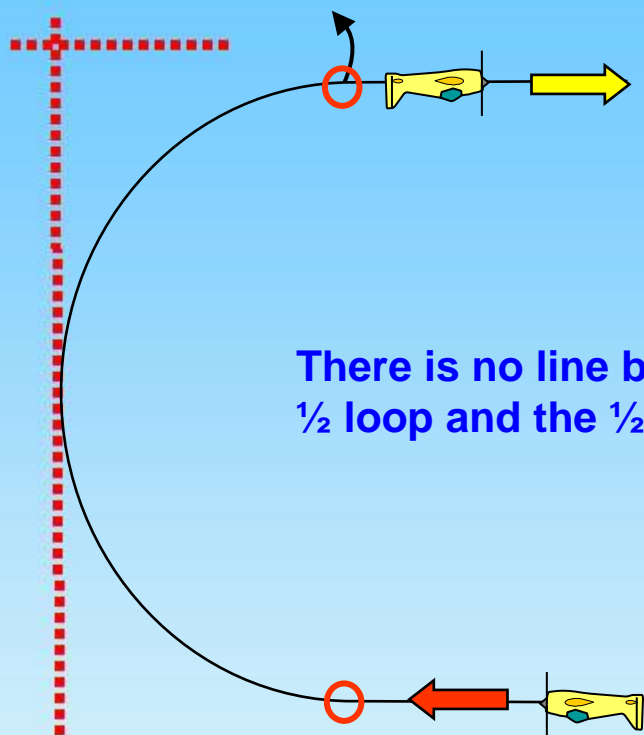½ roll

From inverted push through a half loop,
perform a half roll, exit inverted .

A-23.08.01

A-23.08 Pushed Immelman Turn with half roll

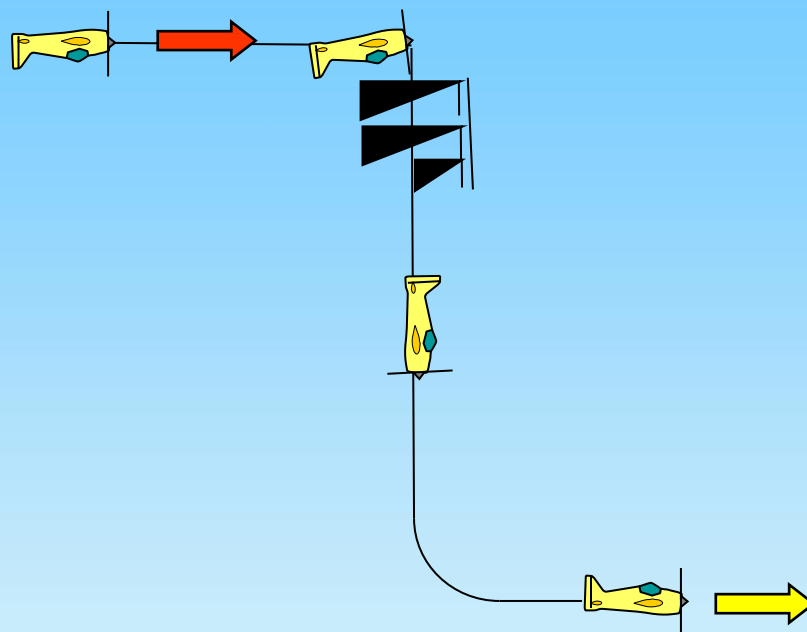**There is no line between the ½ loop and the ½ roll.**
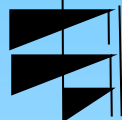
A-23.08.02
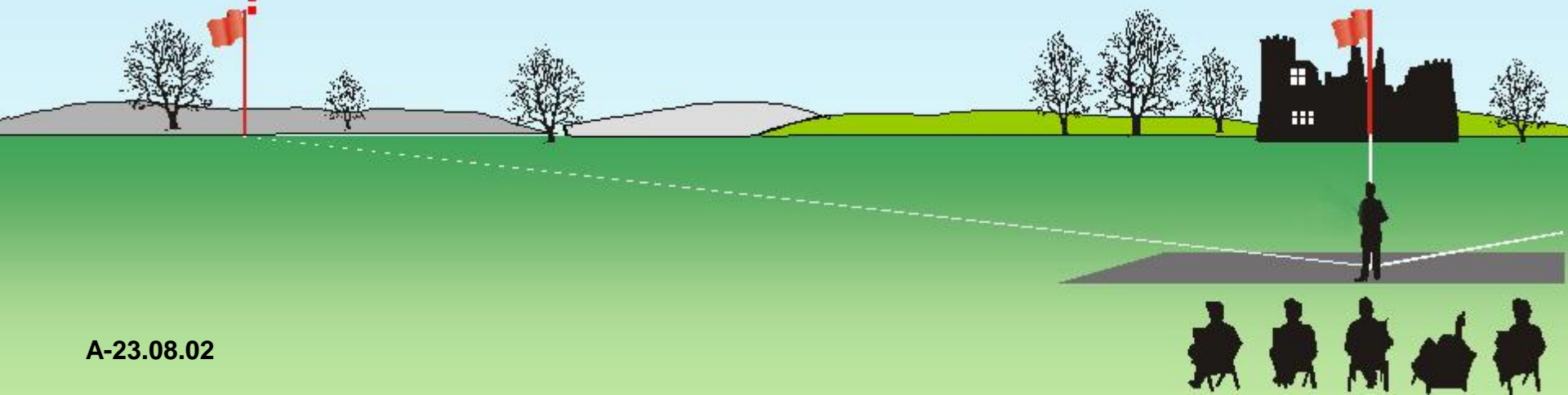
A-23.09 Inverted Spin two and a half turns

From inverted, perform an inverted spin with two and a half turns, perform a vertical downline, pull through a quarter loop, exit upright.

A-23.09 Inverted Spin two and a half turns
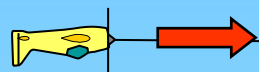
Snap entry - 0 points!

Spiral dive - 0 points!

Forced entry: downgrade.

Line after the spins.
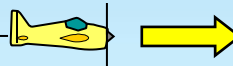
A-23.10 Pull-Pull-Pull Humpty-Bump, with half roll.
Option: (quarter roll, quarter roll)
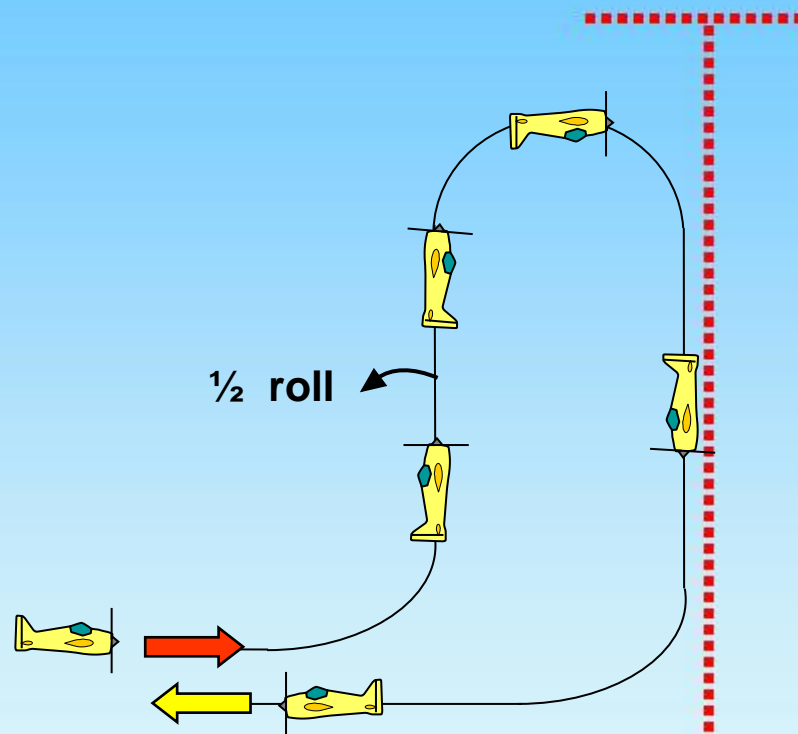
½ roll

From upright, pull through a quarter loop into a vertical upline, perform a half roll, pull through a half loop into a vertical downline, pull through a quarter loop, exit upright.

A-23.10 Pull-Pull-Pull Humpty-Bump, with half roll.
Option: (quarter roll, quarter roll)

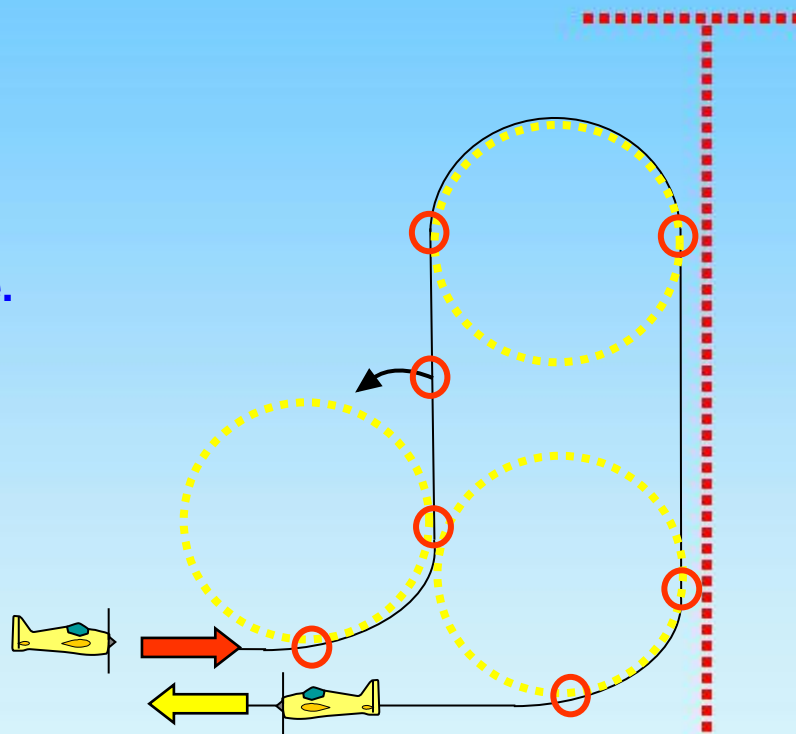½ roll on middle of the line.

All radii are equal.

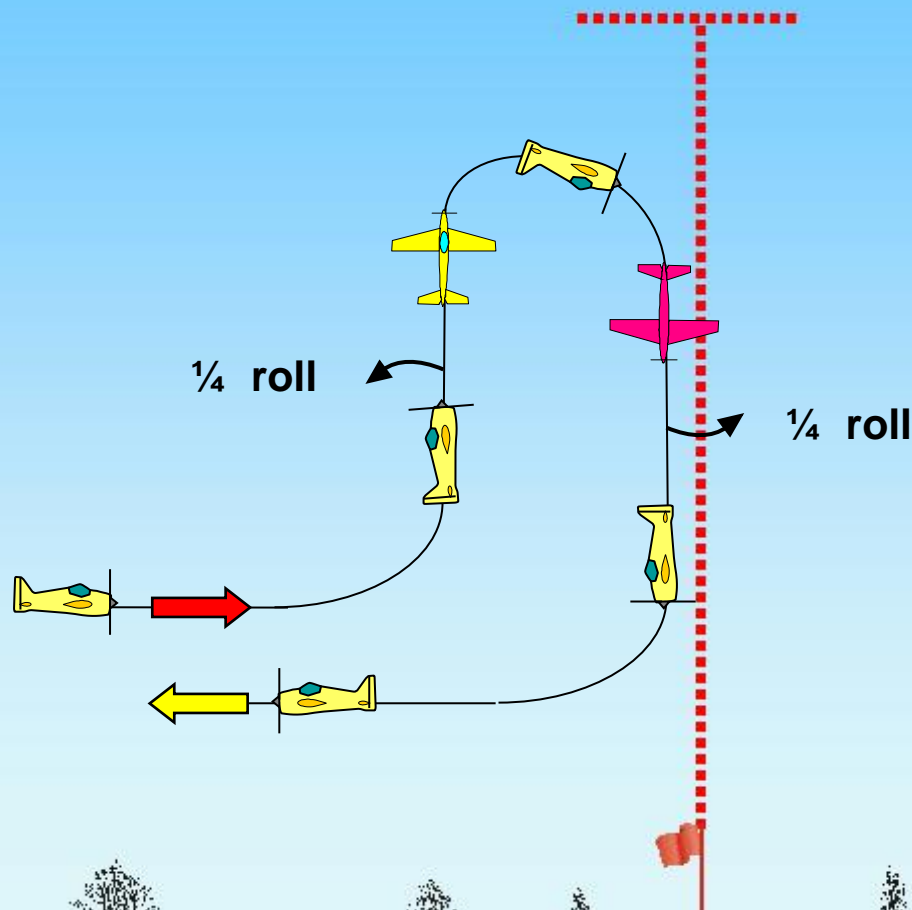# A-23.10 Pull-Pull-Pull Humpty-Bump, with half roll.
Option: (quarter roll, quarter roll)

Option

¼ roll

¼ roll

From upright pull through a quarter loop into a vertical upline, perform a quarter roll, pull through a half loop into a vertical downline, perform a quarter roll, pull through a quarter loop, exit upright.

Option

Rolls on middle of the line.

All radii are equal.

¼

¼
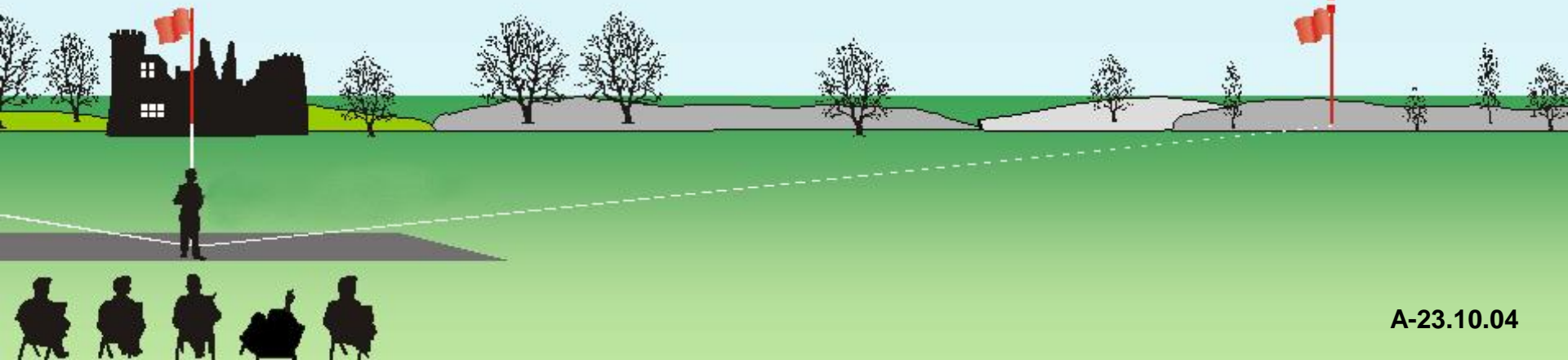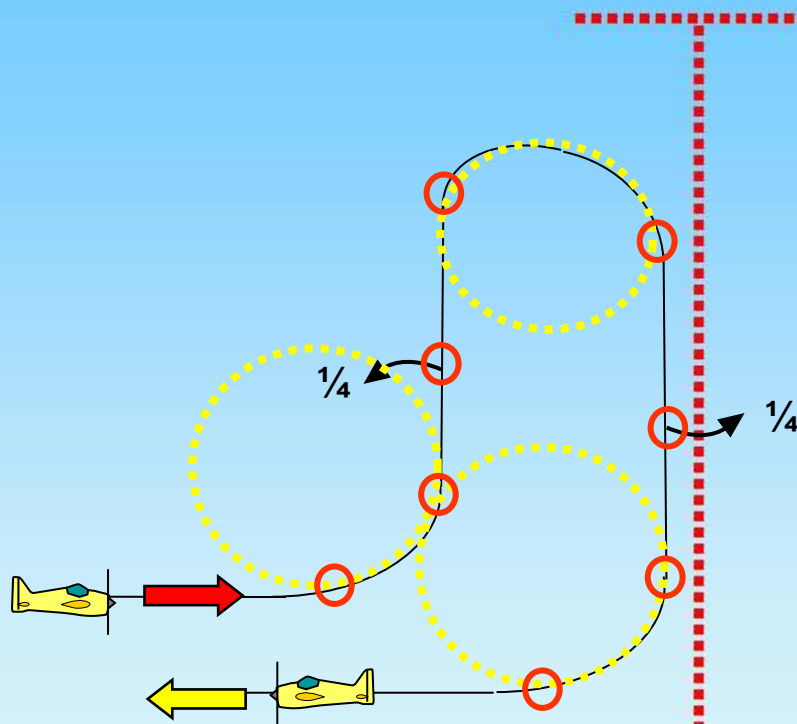
A-23.11 Reverse Figure ET

From upright pull through a one eighth loop into a forty five degree upline, push through a seven eighths loop into a vertical upline, push through a quarter loop , exit upright.
(*Note: The vertical line must be in the center.*)

A-23.11 Reverse Figure ET

All radii are equal.

45°

A-23.11.02

A-23.12 Half Square Loop with half roll

½ roll
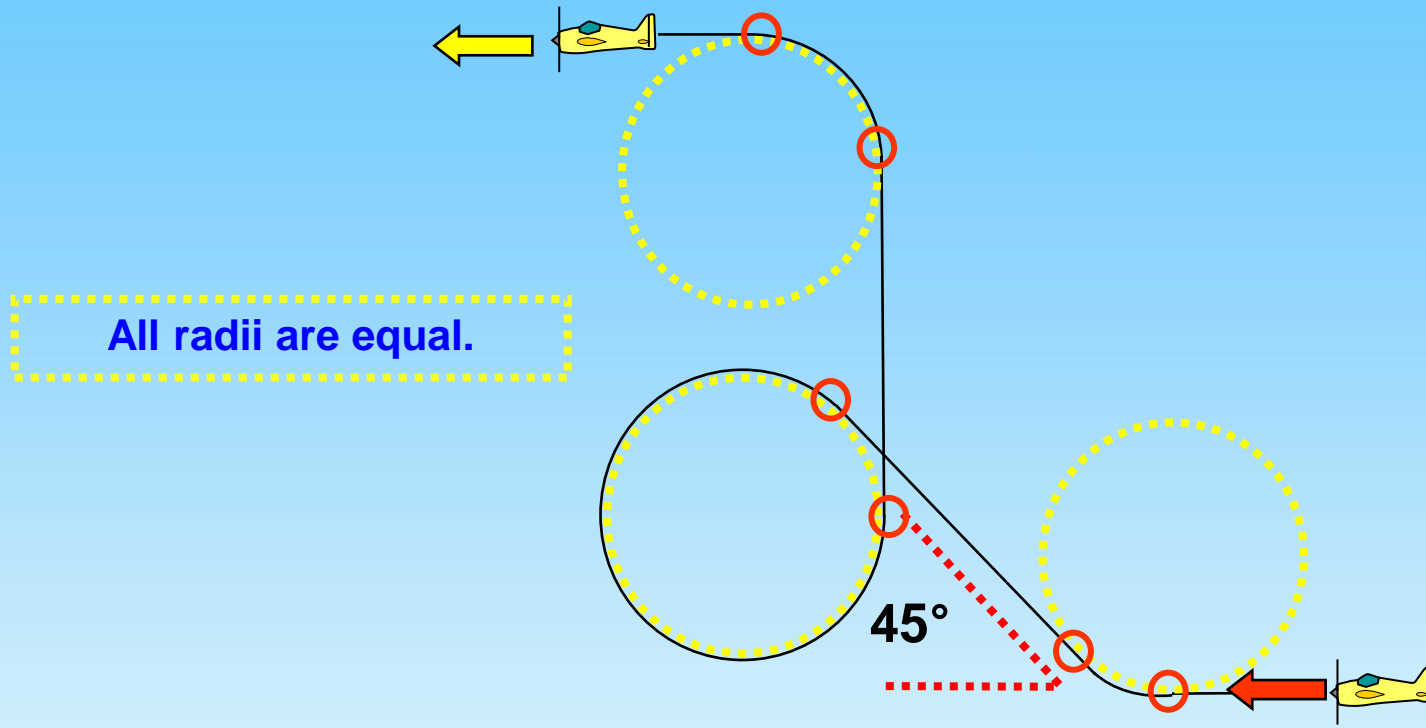
From upright push through a quarter loop into a vertical downline, perform a half roll, pull through a quarter loop, exit upright.

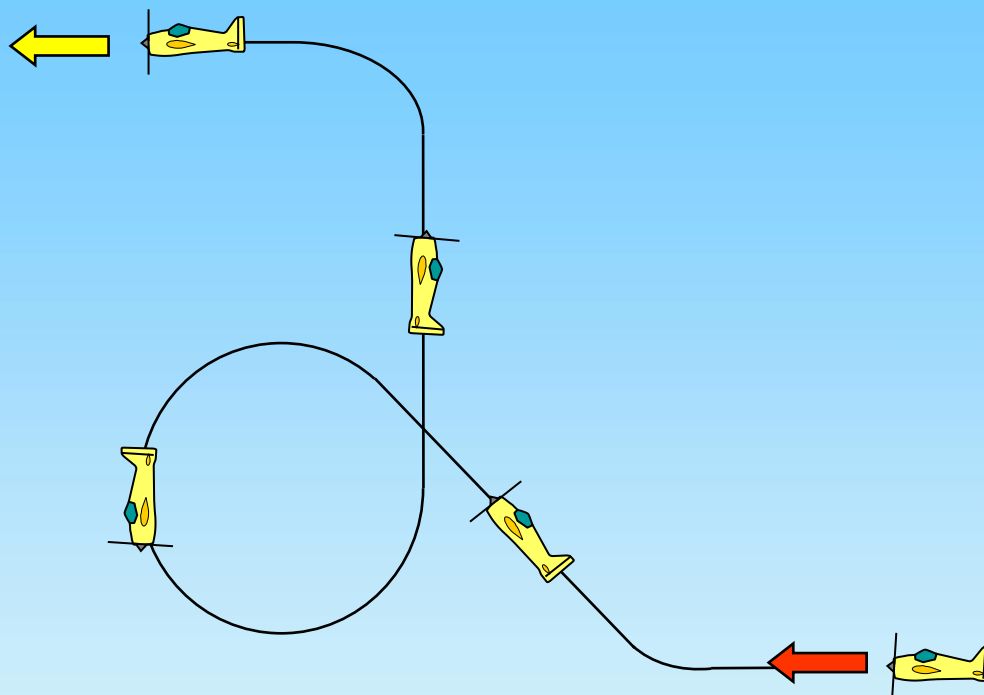# A-23.12 Half Square Loop with half roll

½ roll on middle of the line.

All radii are equal.

A-23.13 Figure M, with quarter rolls
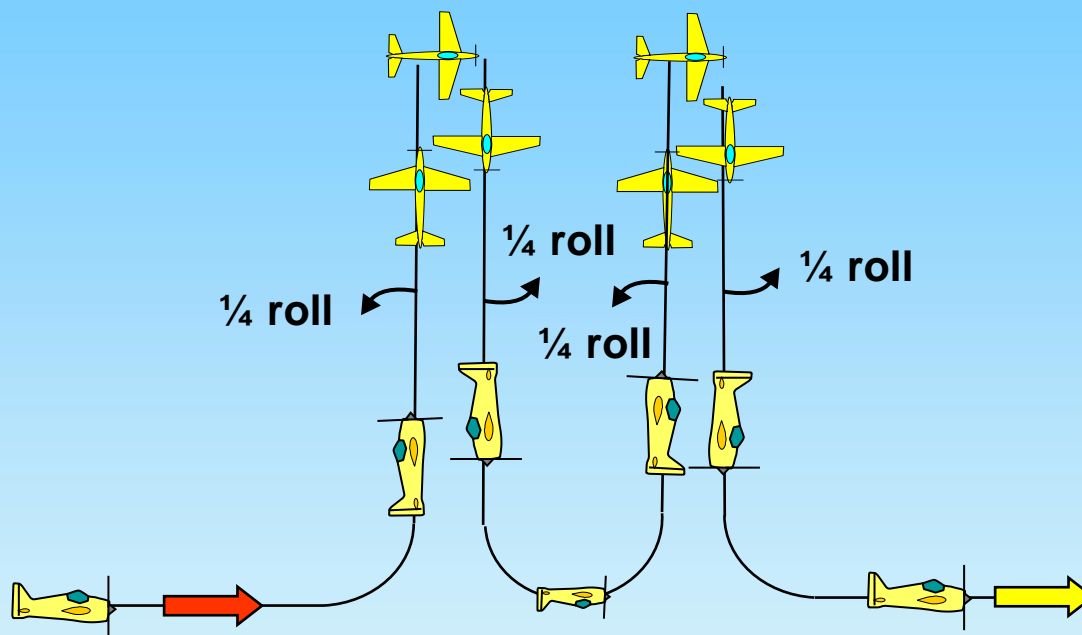
¼ roll

¼ roll

¼ roll

¼ roll

From upright pull through a quarter loop into a vertical upline, perform a quarter roll, perform a stall turn into a vertical downline, perform a quarter roll, push through a half loop into a vertical upline, perform a quarter roll, perform a stall turn to a vertical downline, perform a quarter roll, pull through a quarter loop, exit upright.

A-23.13.01

A-23.13 Figure M, with quarter rolls

Stop before pivot

Pivot on CG

Two wing spans or more – zero points!

¼ **¼** **¼** **¼** **¼**

¼ rolls on middle of the lines.

All radii are equal.

A-23.14 Trombone

½ roll
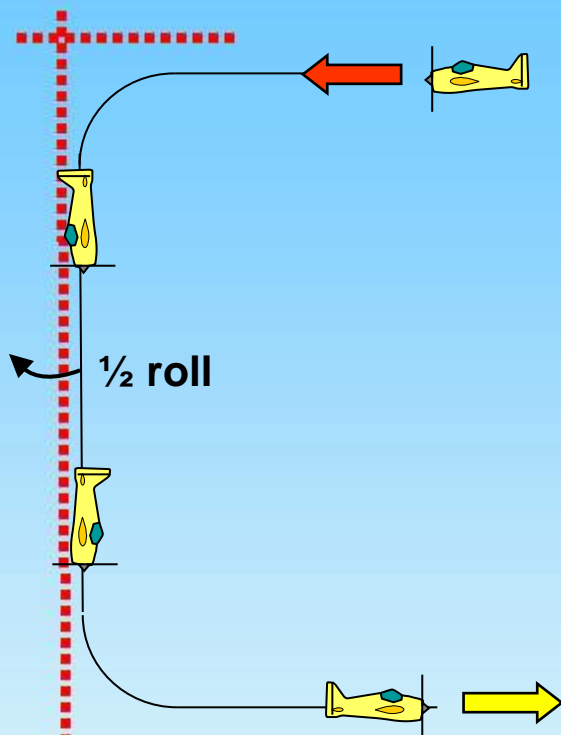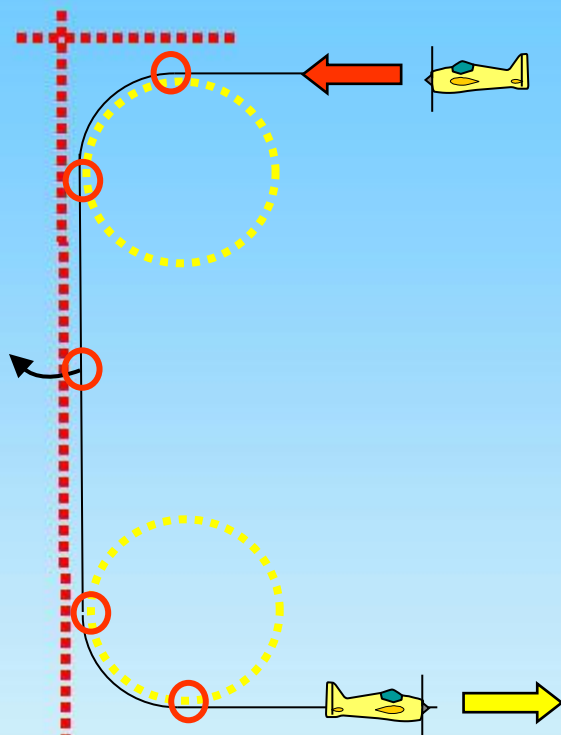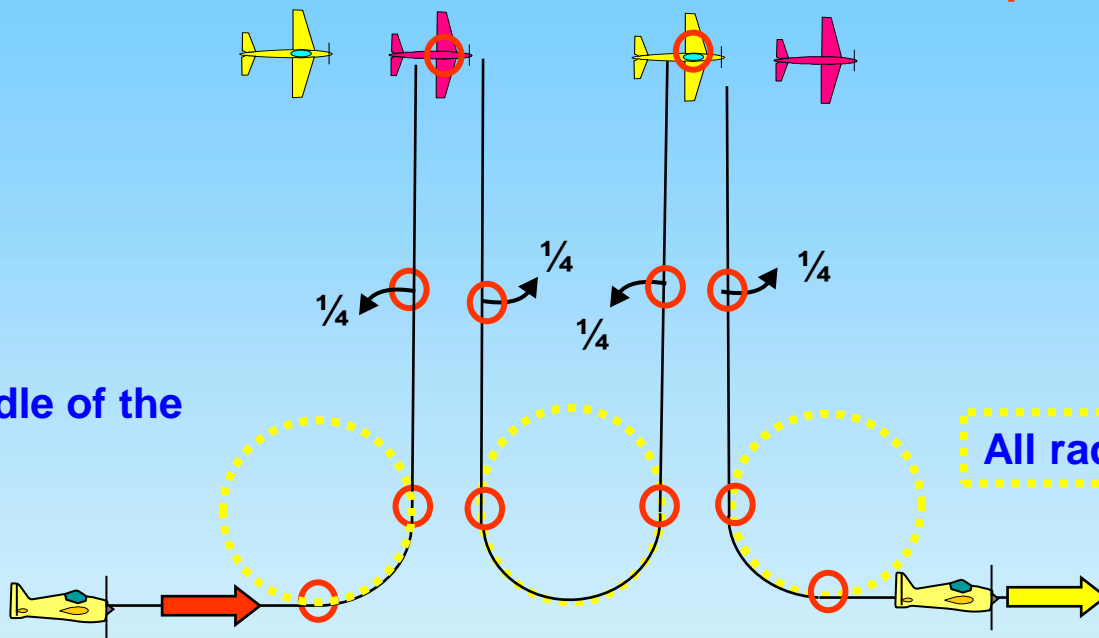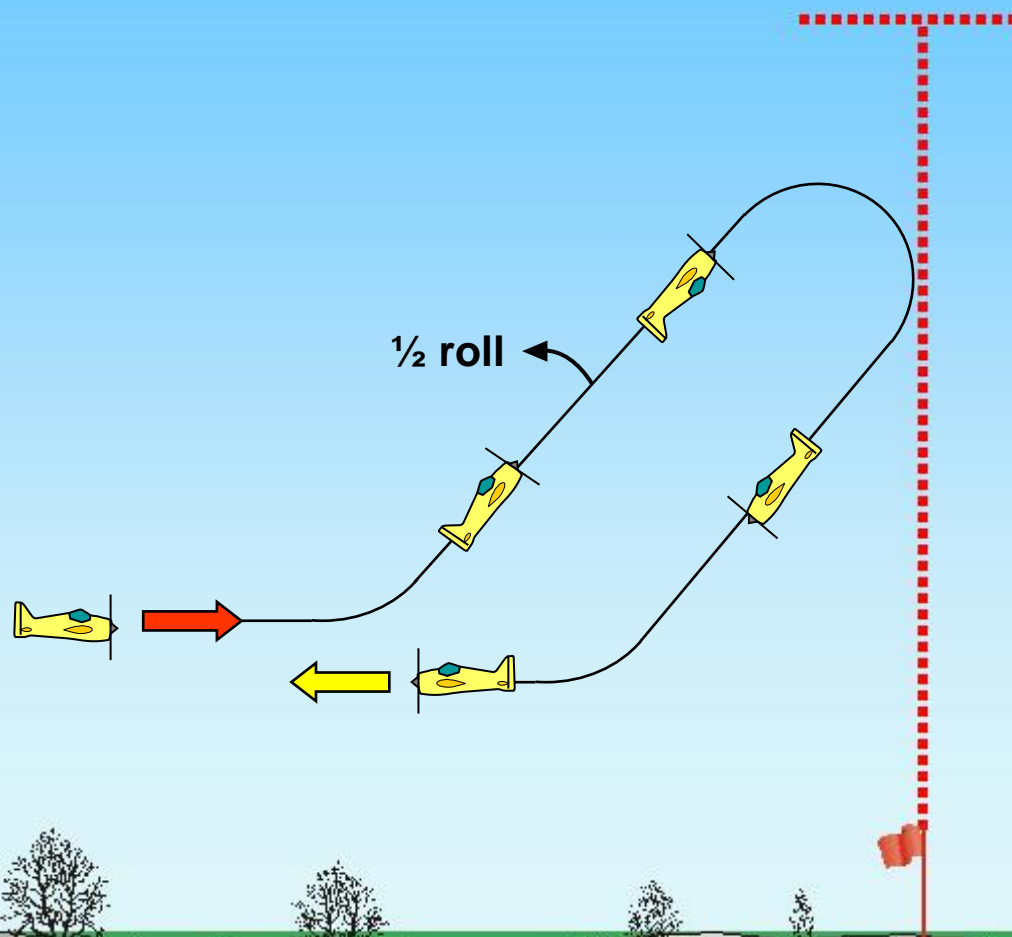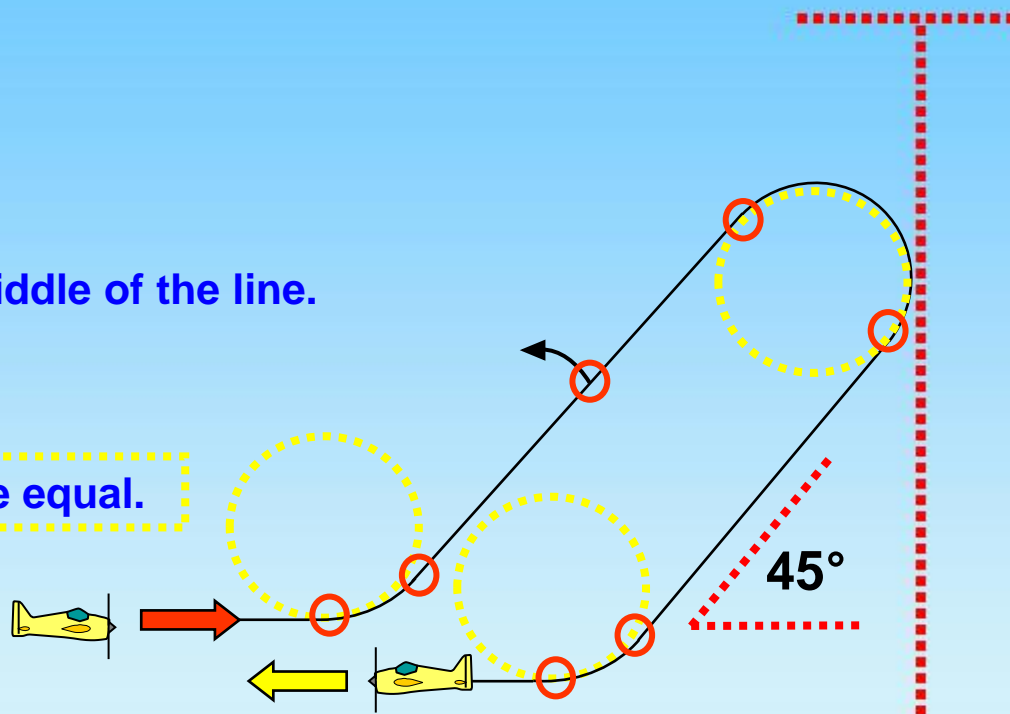
From upright pull through a one eighth loop into a forty five degree upline, perform a half roll, pull through a half loop into a forty five degree downline, pull through a one eighth loop, exit upright.

A-23.14.01

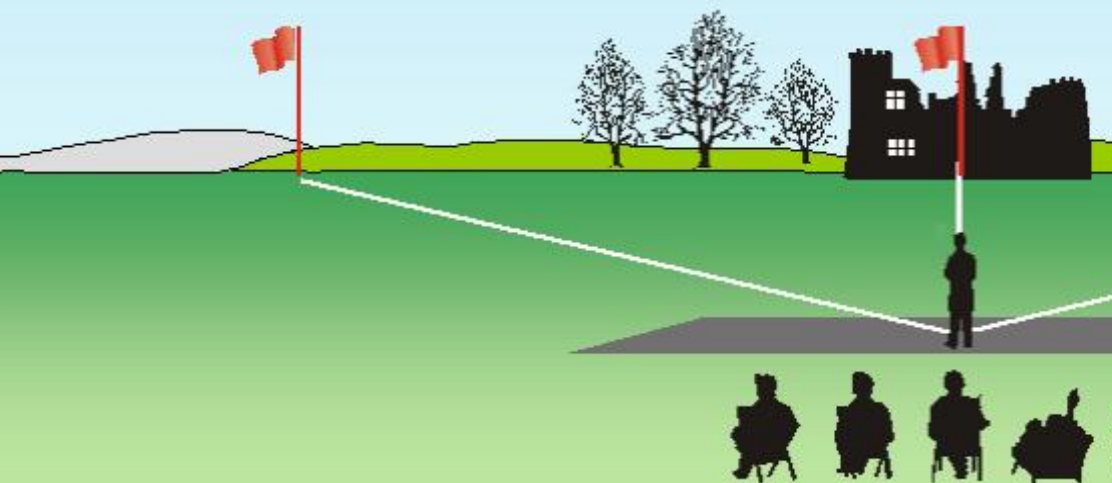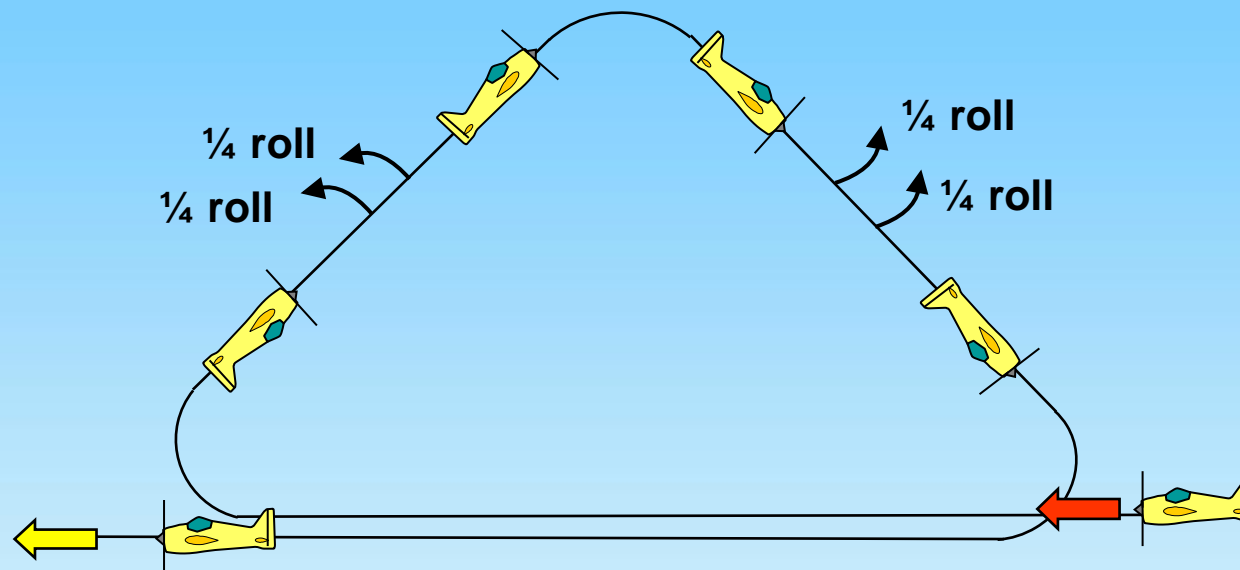# A-23.14 Trombone

½ roll on middle of the line.

All radii are equal.

45°

A-23.15 Triangle with two consecutive quarter rolls, two consecutive quarter rolls


¼ roll

¼ roll

¼ roll

¼ roll

From upright, pull through a three eighths loop into a forty five degree upline, perform consecutively two quarter rolls, push through quarter loop into a forty five degree downline, perform consecutively two quarter rolls, pull through a three eighths loop, exit upright.

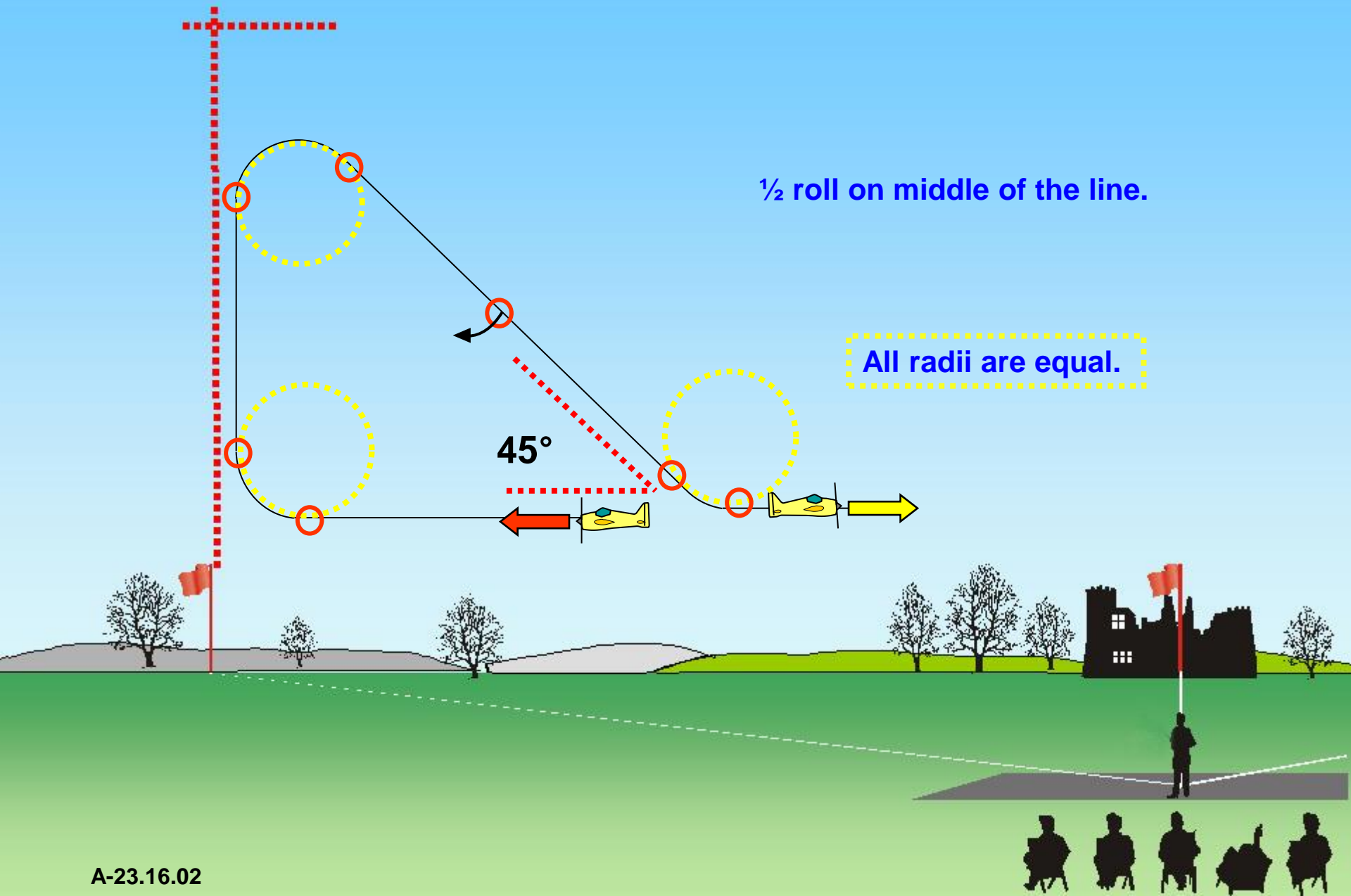# A-23.15 Triangle with two consecutive quarter rolls, two consecutive quarter rolls
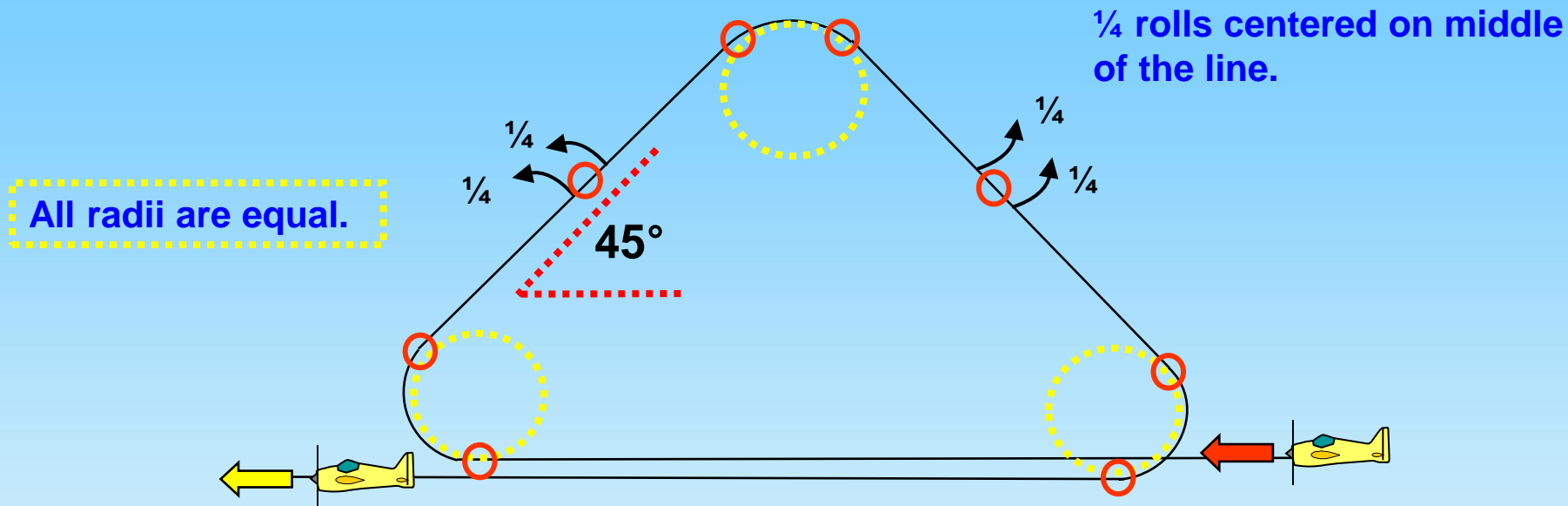
¼ rolls centered on middle of the line.

All radii are equal.

¼

¼

45°

¼

¼

A-23.16 Reverse Shark Fin with half roll

½ roll
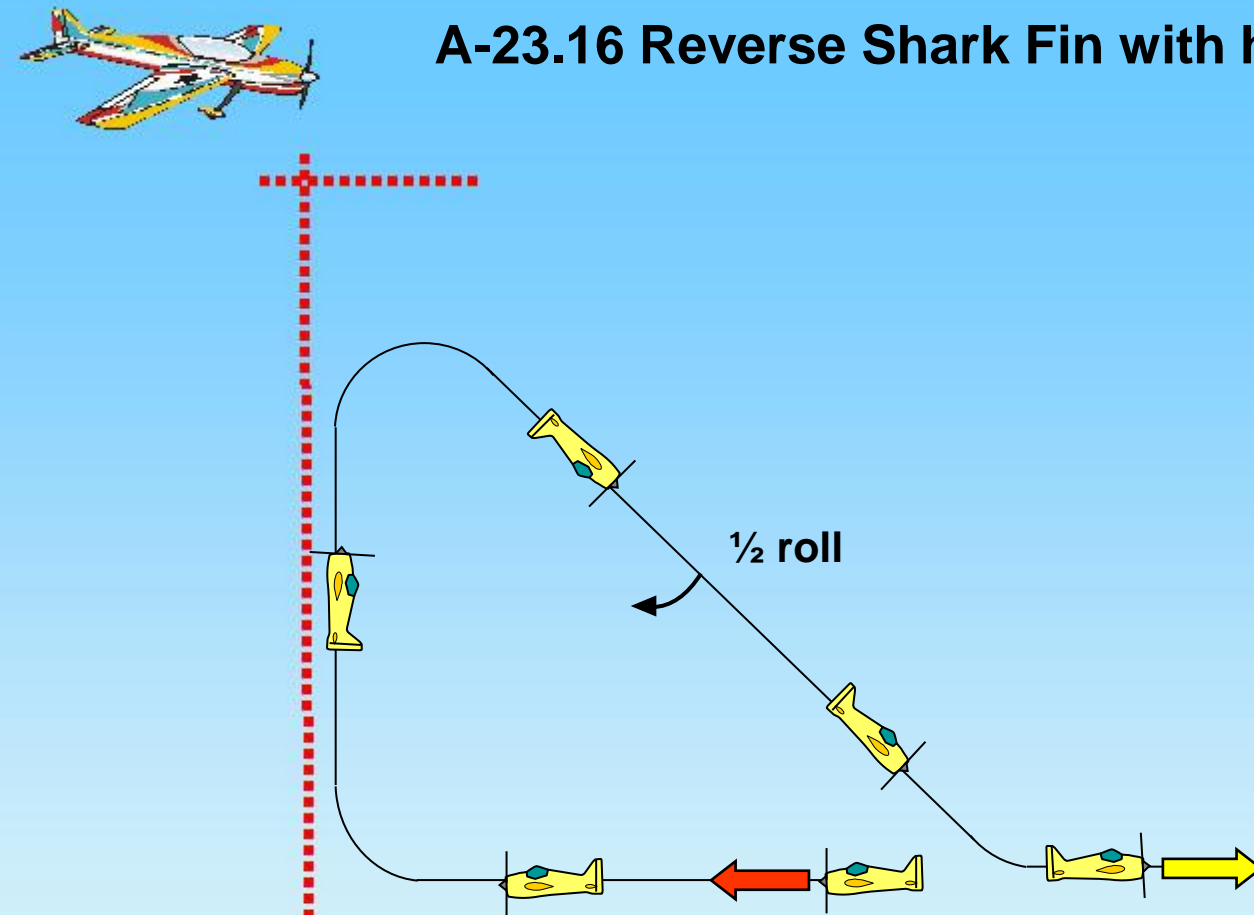
From upright pull through a quarter loop into a vertical upline, pull through a three eighths loop into a forty five degree downline, perform a half roll, pull through a one eighth loop, exit upright.
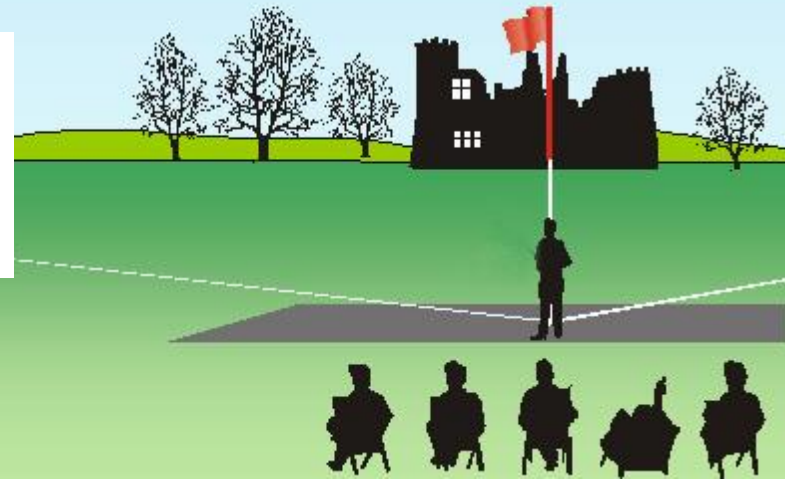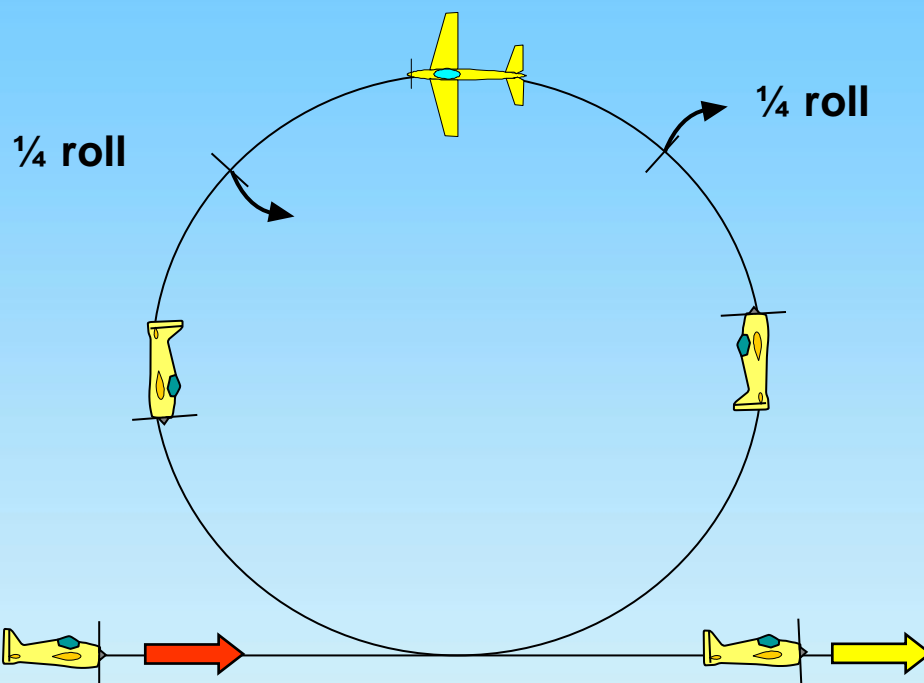
A-23.16 Reverse Shark Fin with half roll

½ roll on middle of the line.

All radii are equal.

45°

A-23.17 Loop with Knife-Edge Flight

¼ roll

¼ roll

From upright pull through a loop with a knife-edge flight over the top ninety degrees, exit upright.
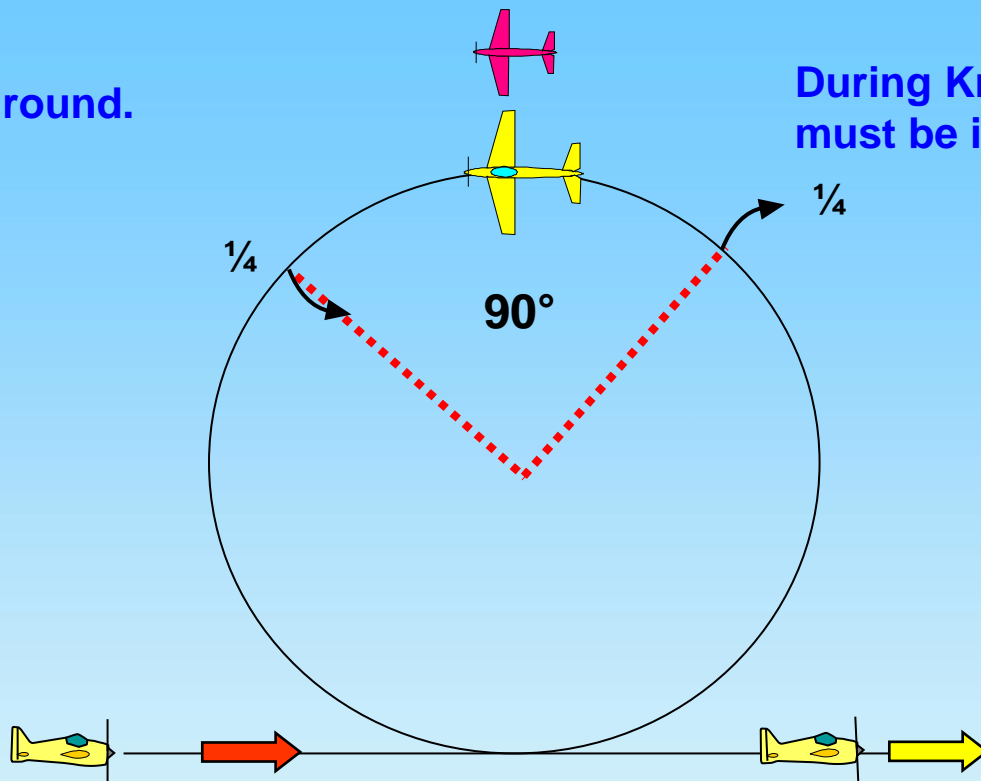
A-23.17 Loop with Knife-Edge Flight

Loop must be round.

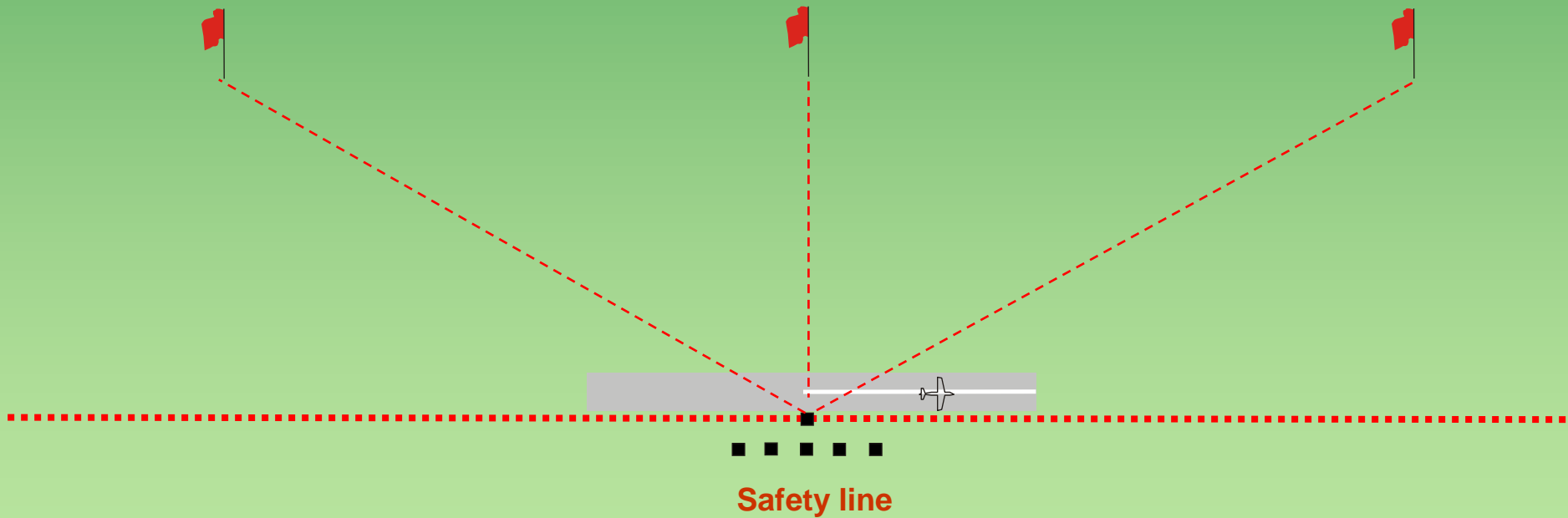During Knife Edge the wing must be in the vertical plane.

¼

¼

90°

Landing procedure

(not judged, not scored)

The direction of the landing may be different to the take off.
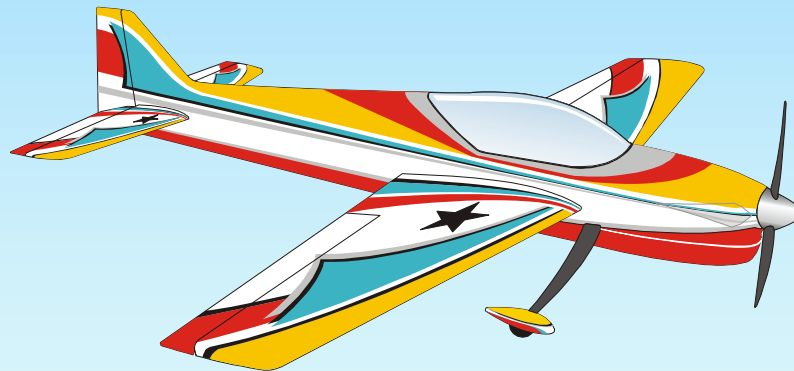
wind

Safety line

Forget **WHO** is flying

(friend, rival, countryman, flier from other nation)

Forget **WHAT** is flying

(2-stroke, 4-stroke, electric)

LOOK <u>ONLY</u> AT LINES DESCRIBED IN THE SKY!

(and the precision, smoothness, positioning, and size)

Bob Skinner

Thank you!