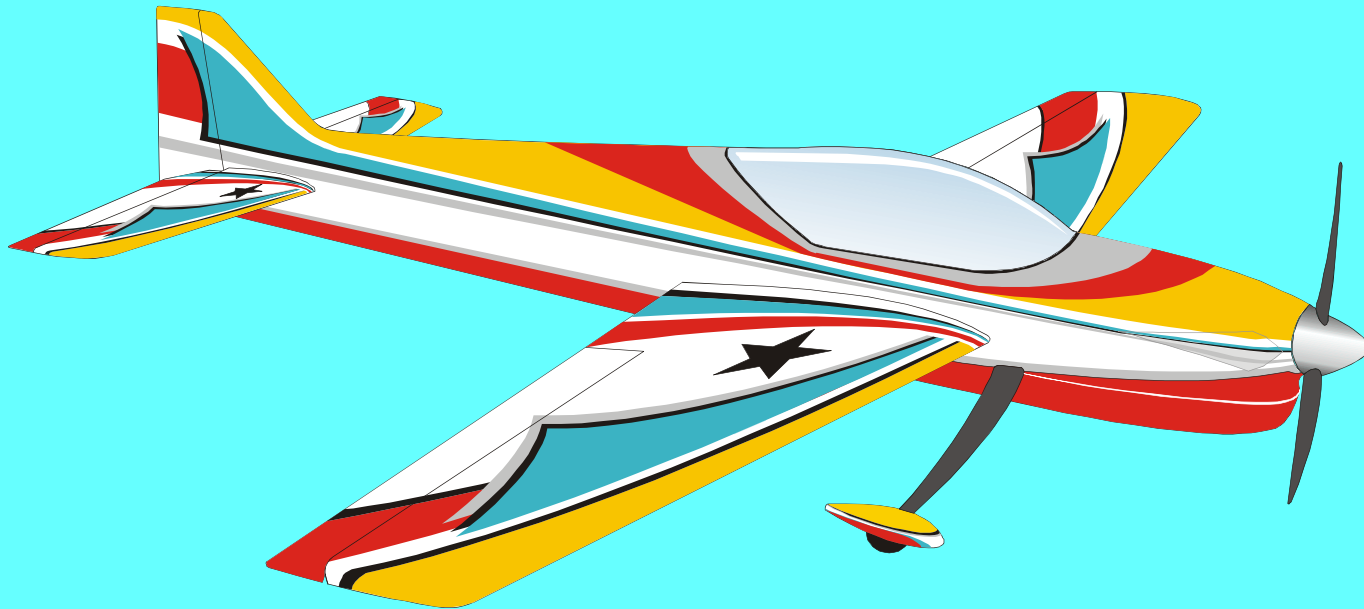


# Flying and Judging F3A

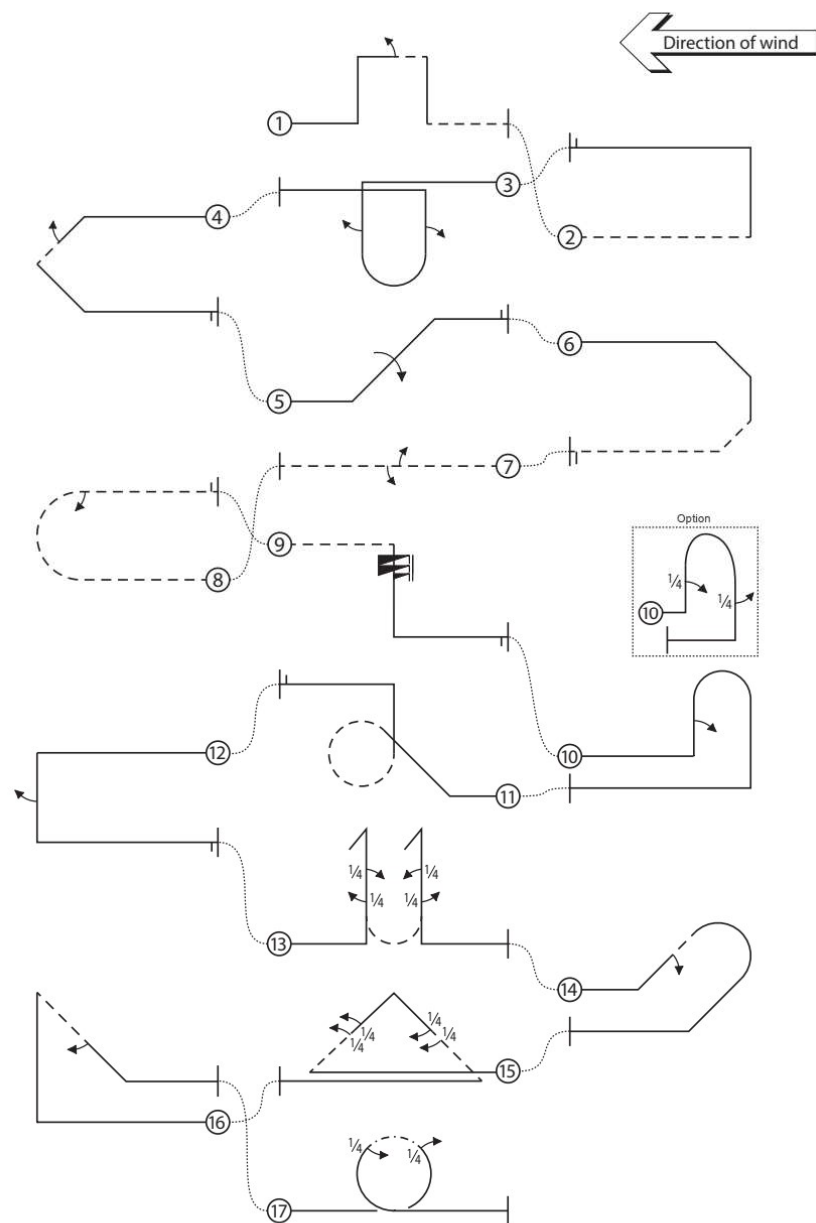
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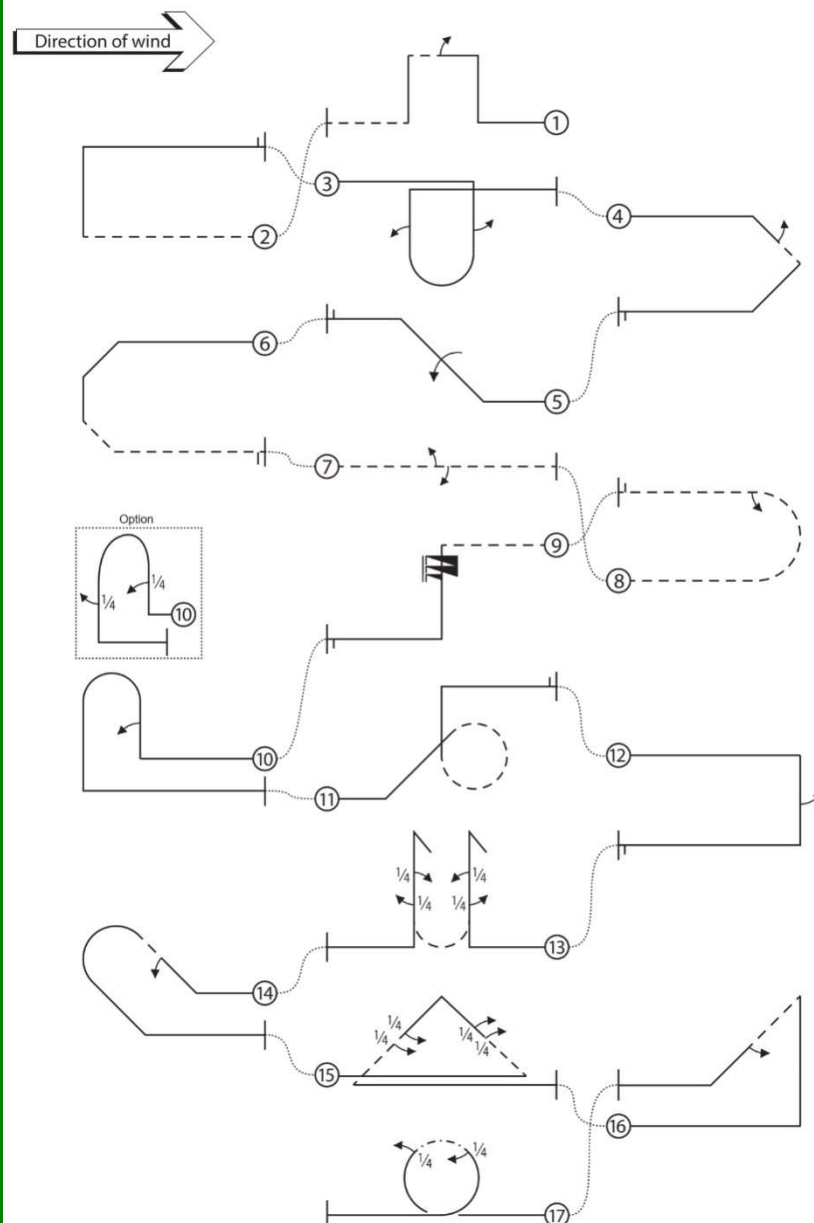
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**SCHEMATIC MANOEUVRE ILLUSTRATIONS**  
**SCHEDULE A-23**

# ADVANCED SCHEDULE A-23 (2021-2023)

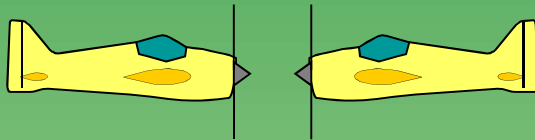


# ADVANCED SCHEDULE A-23 (2021-2023)

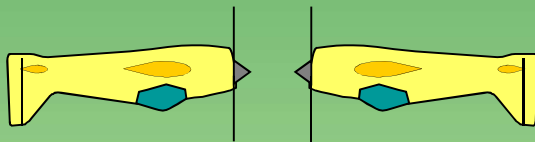




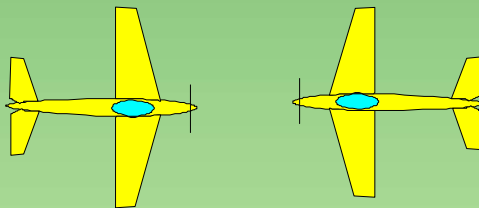
# Explanations:



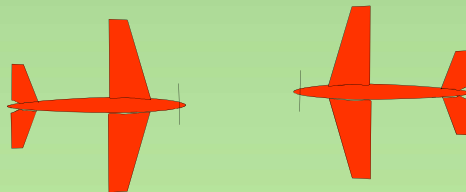
**Aircraft upright**



**Aircraft inverted**



**Aircraft in Knife-Edge  
View from Top**

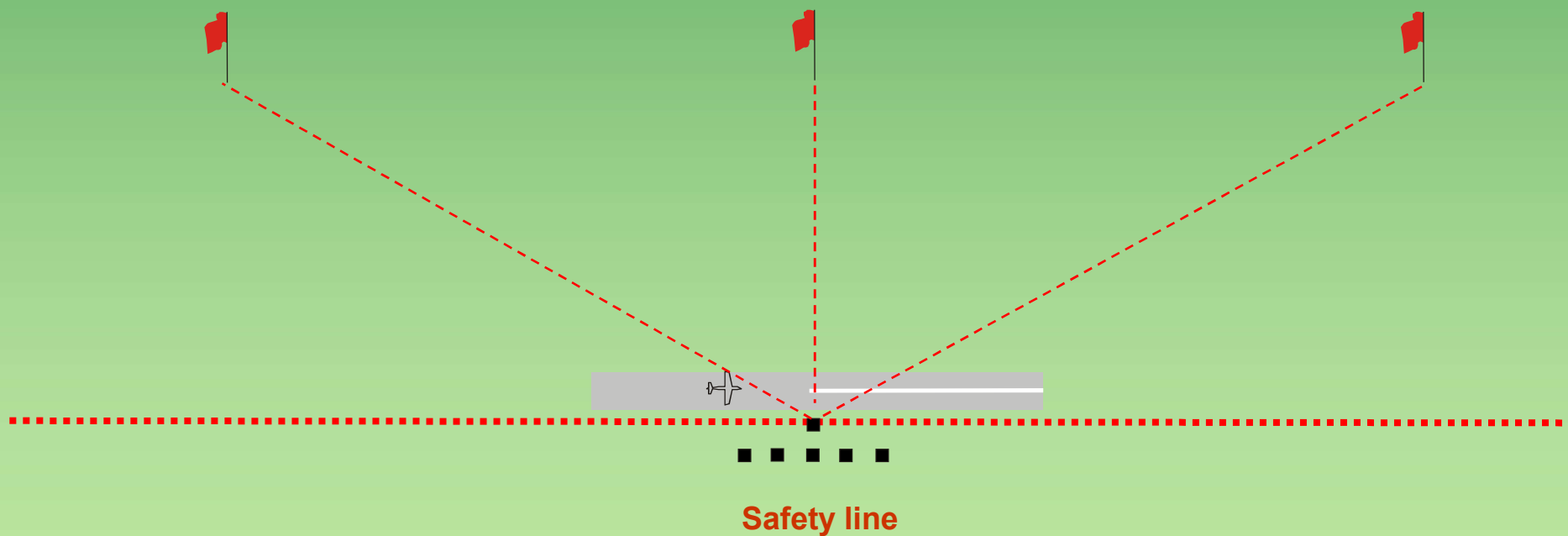


**Aircraft in Knife-Edge  
View from Below**



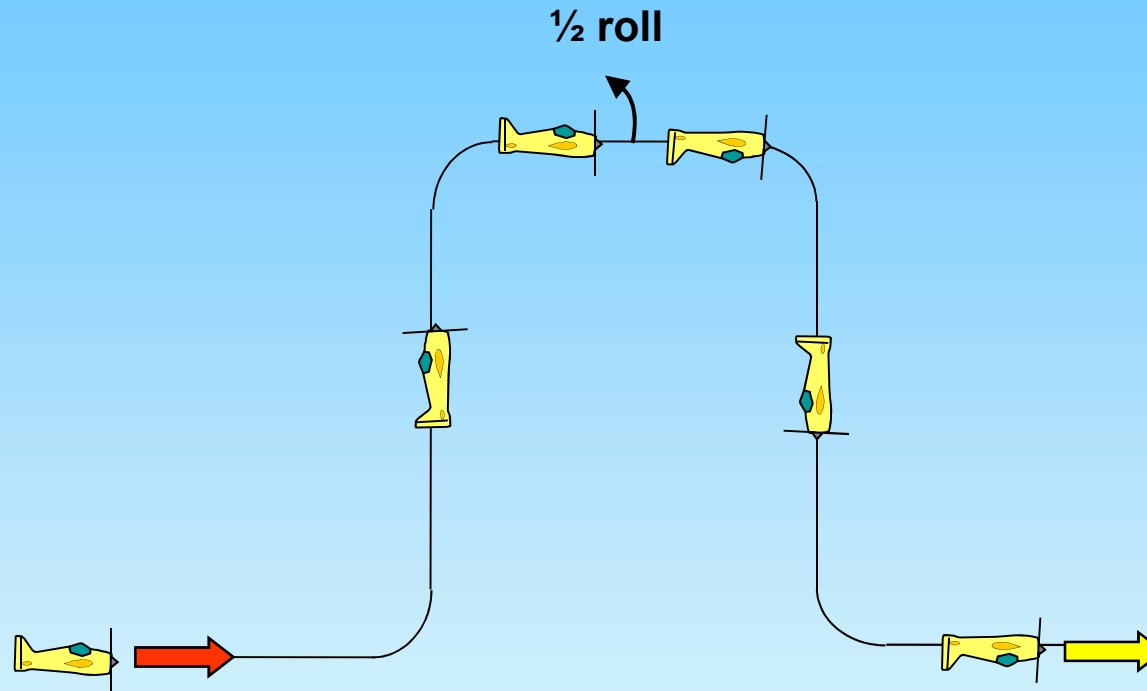
# Take-off procedure ( not judged, not scored )

← wind





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



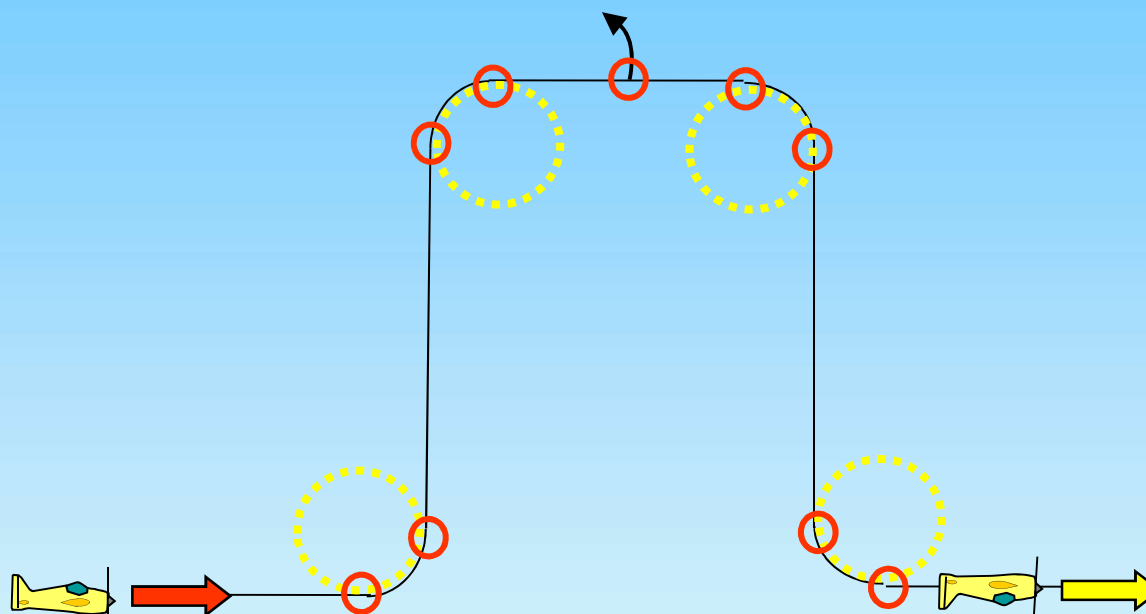
From upright pull through a quarter loop into a vertical upline, push through a quarter loop, perform a half roll, pull through a quarter loop into a vertical downline, push through a quarter loop, exit inverted.





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

$\frac{1}{2}$  roll on middle of the line.

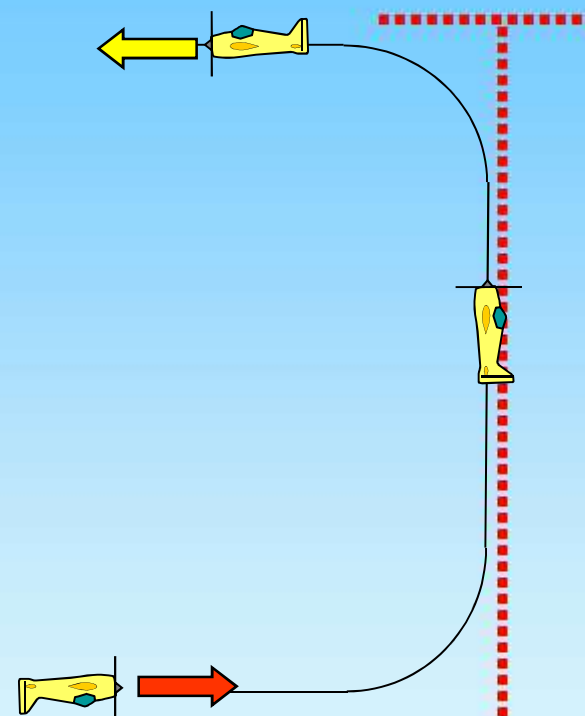


All radii are equal.





## A-23.02 Half Square Loop

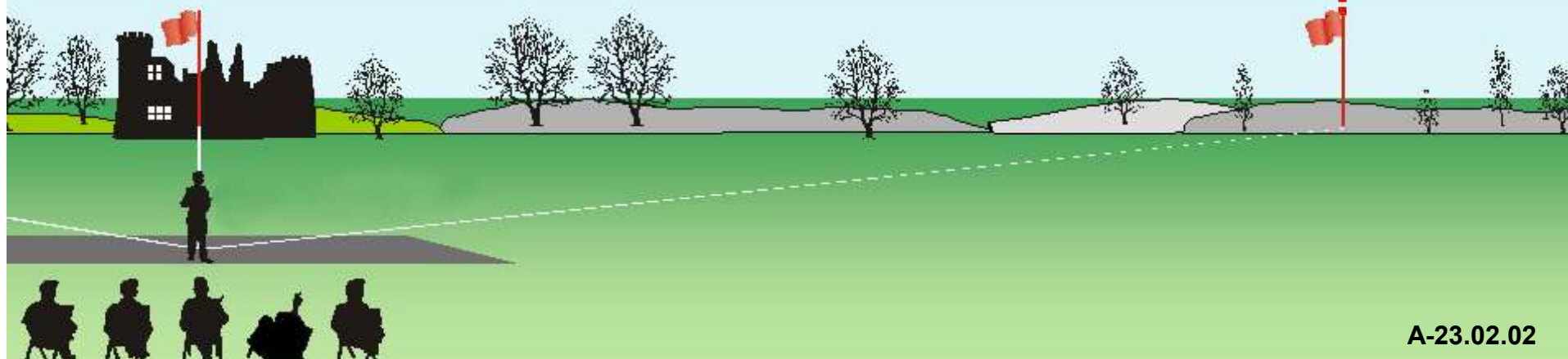
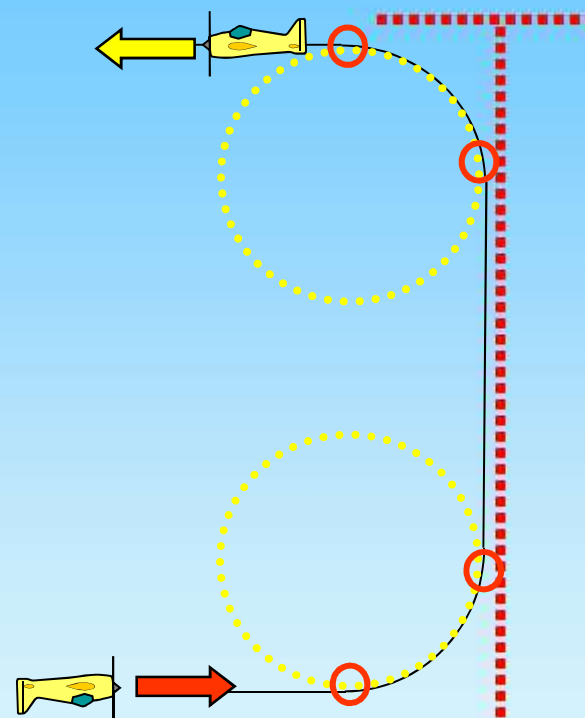


From inverted, push through a quarter loop into a vertical upline, push through a quarter loop, exit upright.



## A-23.02 Half Square Loop

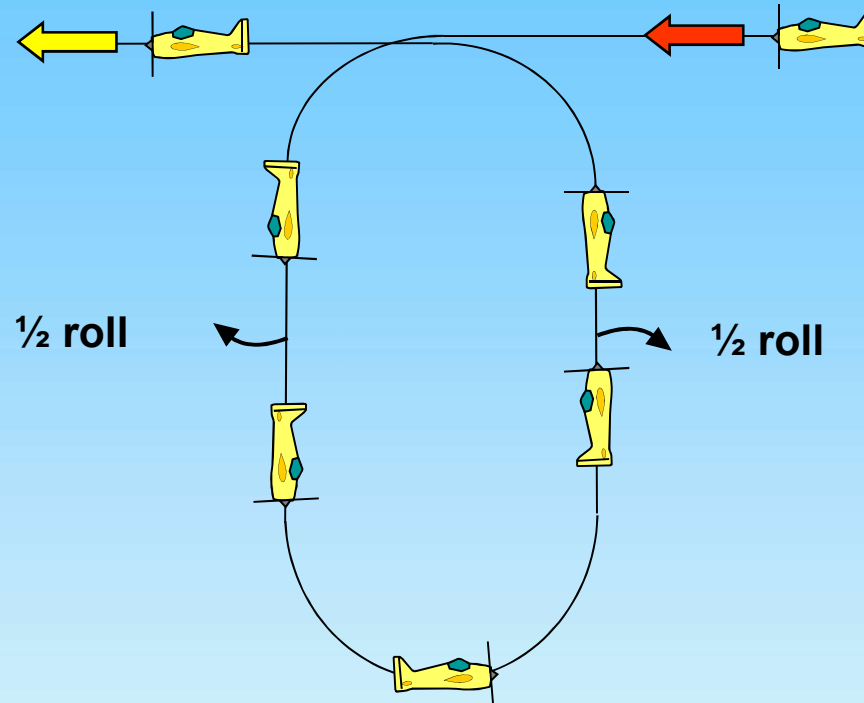
All radii are equal.







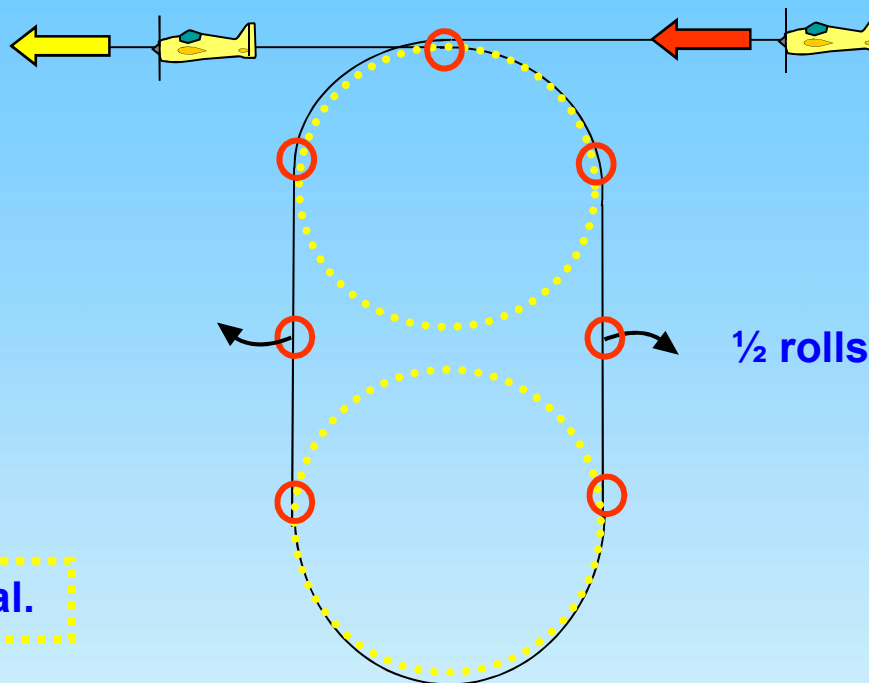
## A-23.03 Push-Pull-Push Humpty-Bump with half roll, half roll



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



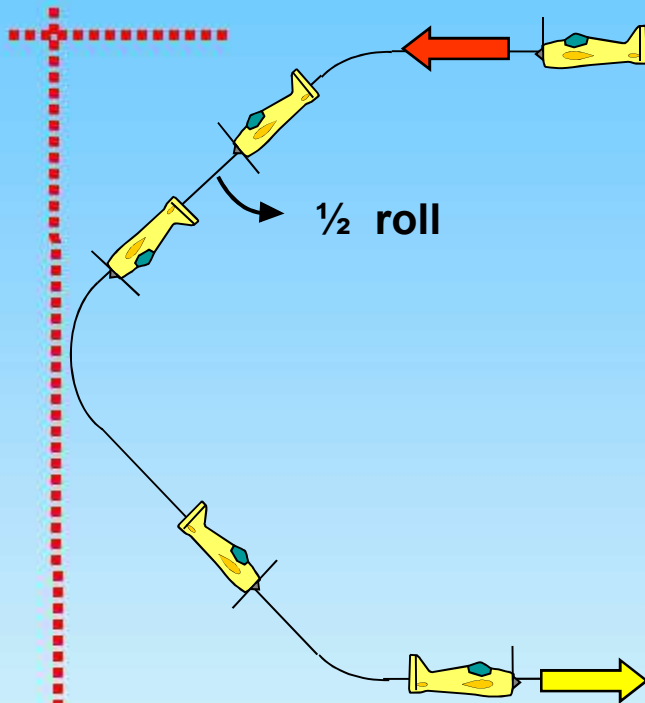
All radii are equal.

$\frac{1}{2}$  rolls on middle of the line.





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

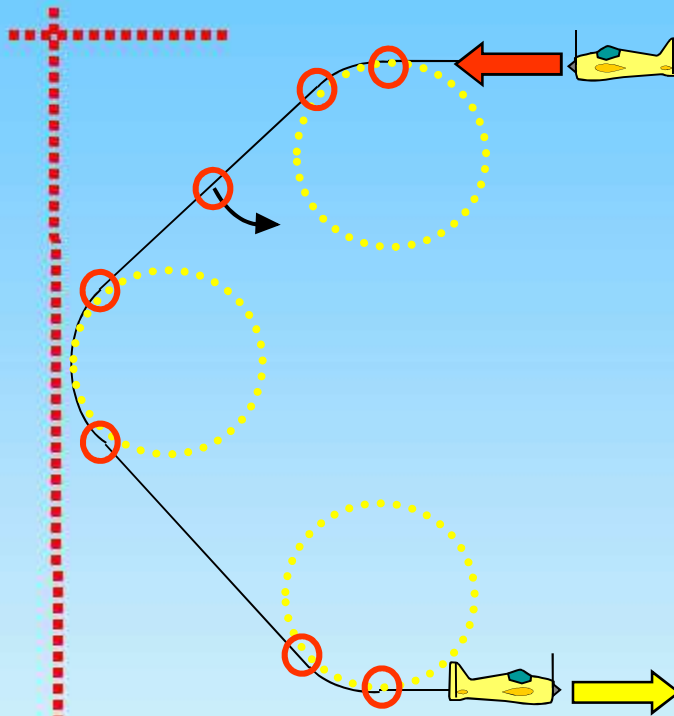


From upright, push through a one eighth loop into a forty five degree downline, perform a half roll, pull through a quarter loop into a forty five degree downline, pull through an eighth loop, exit upright.





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



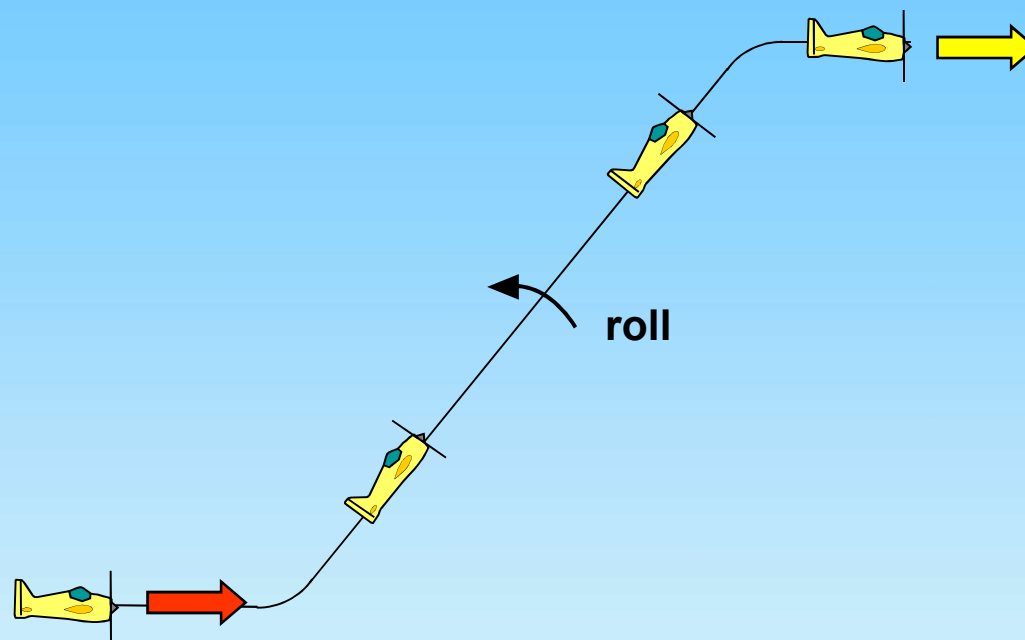
$\frac{1}{2}$  roll on middle of the line.

All radii are equal.





## A-23.05 Forty Five degree Upline, with 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 diagram illustrating a path with two loops. The path starts at a yellow airplane on the left, moves right, then turns up and left to form a loop. It then turns down and right to form a second loop, and finally turns up and right to exit the frame. The path is marked with red circles at the start and end of each loop. A dashed red line indicates a 45-degree angle between the path segments. A yellow dashed circle is drawn around the second loop. The text "All radii are equal" is written in blue inside a yellow dashed box.

in middle of the line.

45°

All radii are equal

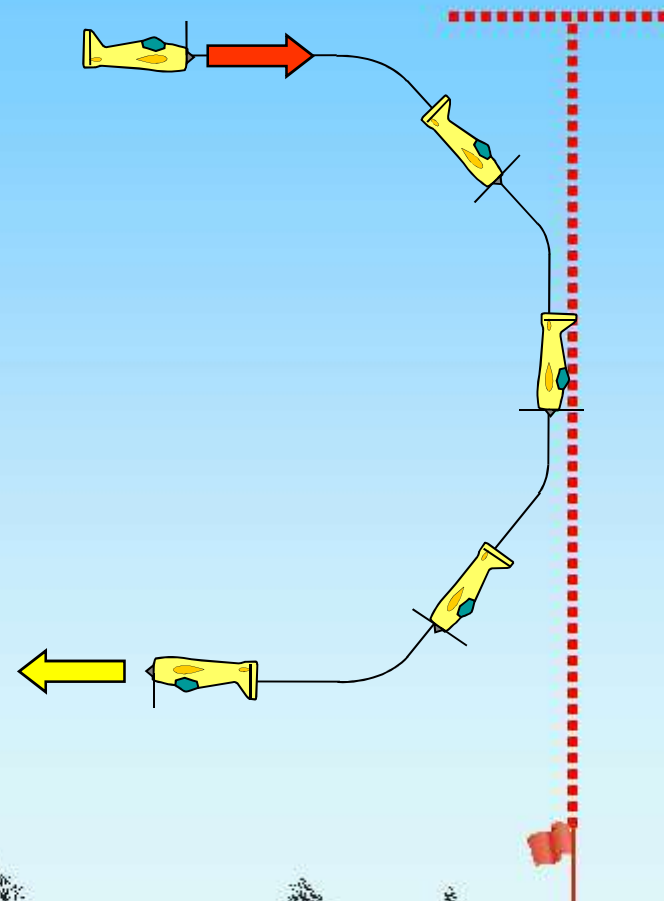
**All radii are equal.**







## A-23.06 Half Eight Sided Loop



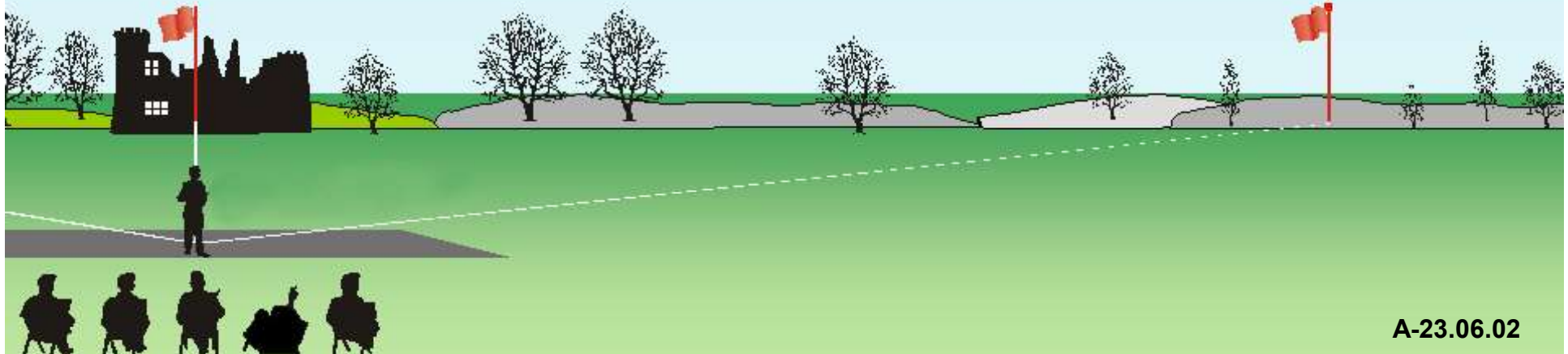
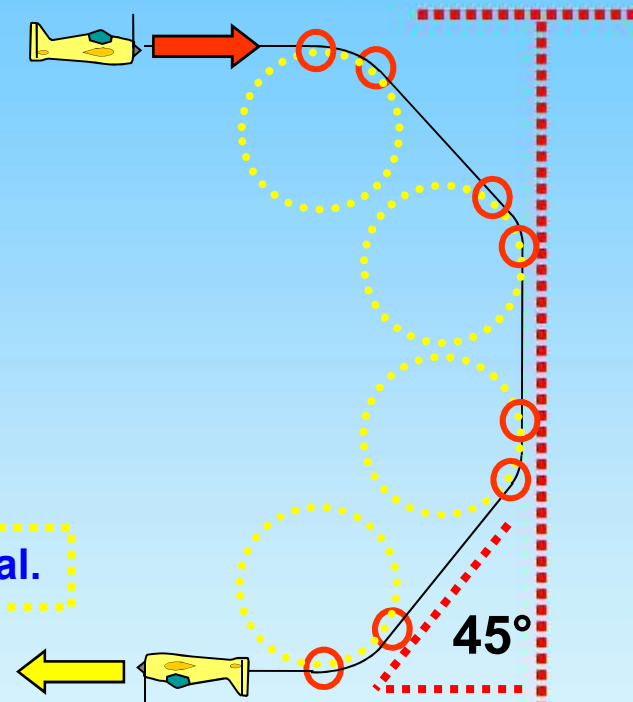
From upright push through a one eighth loop into a forty five degree downline, push through a one eighth loop into a vertical downline, push through a one eighth loop into a forty five degree downline, push through a one eighth loop, exit inverted.



## A-23.06 Half Eight Sided Loop

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

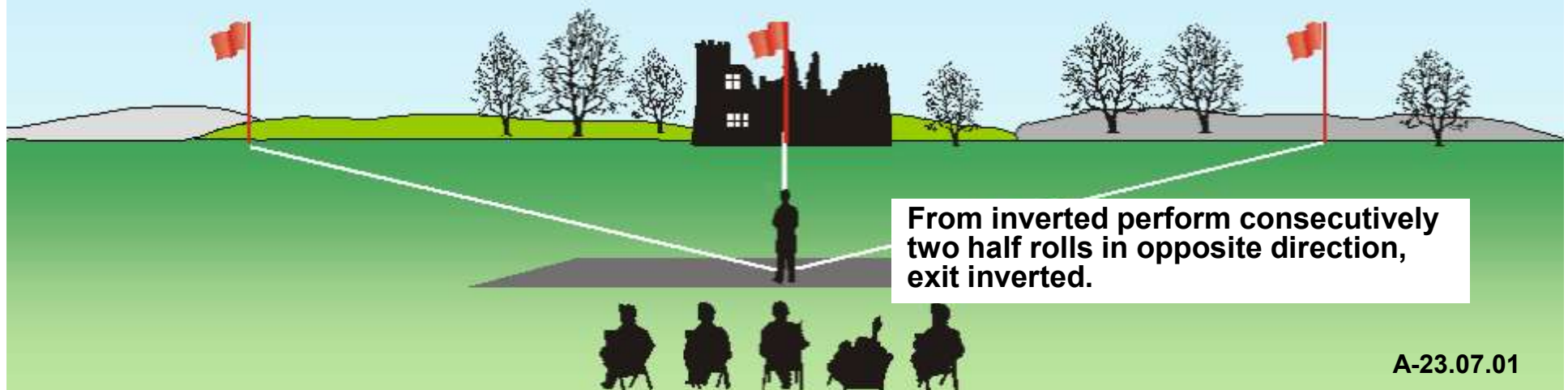
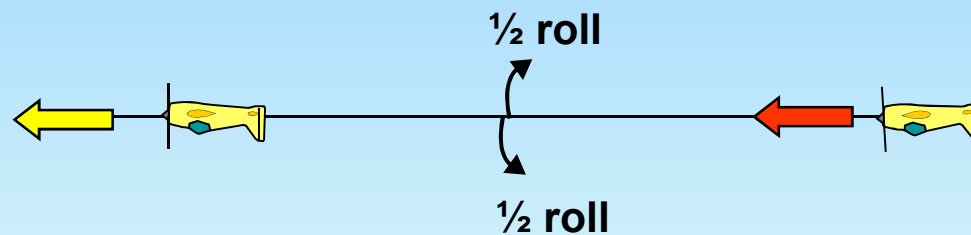
All radii are equal.







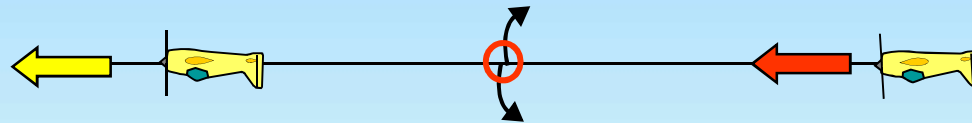
## A-23.07 Roll Combination with two consecutive half rolls in opposite direction





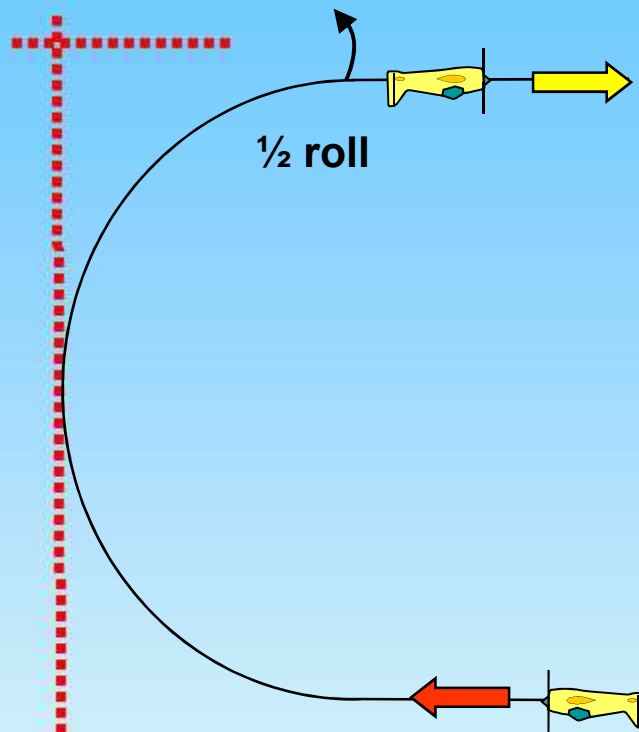
## A-23.07 Roll Combination with two consecutive half rolls in opposite direction

Between rolls and part rolls in opposite direction there must be no line.





## A-23.08 Pushed Immelman Turn with half roll

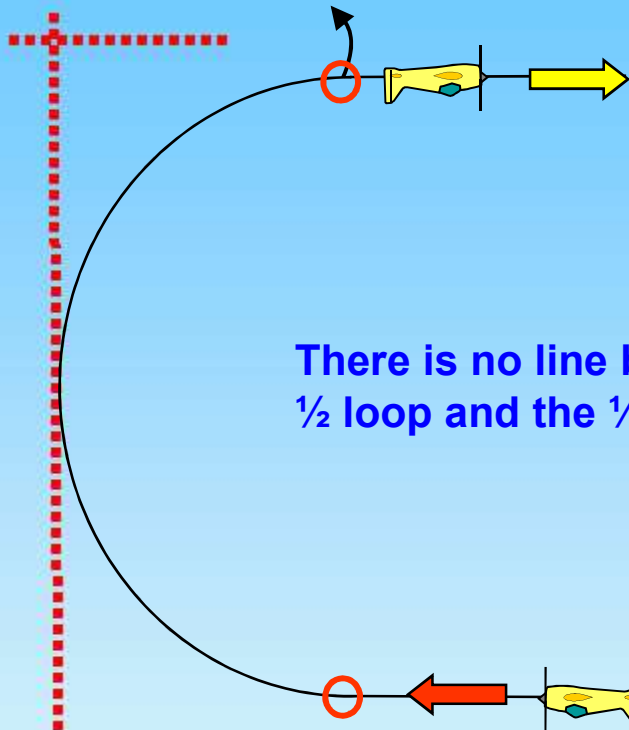


From inverted push through a half loop, perform a half roll, exit inverted .





## A-23.08 Pushed Immelman Turn with half roll

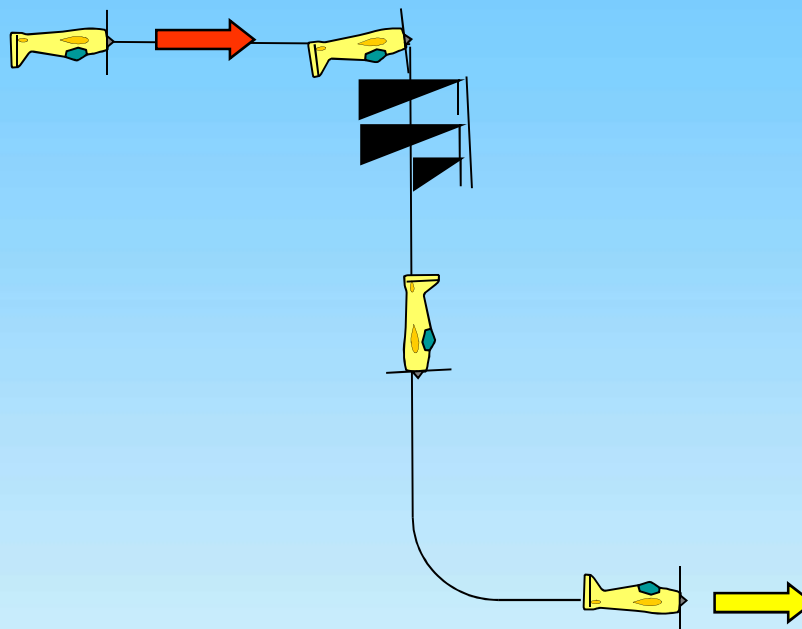


There is no line between the  
 $\frac{1}{2}$  loop and the  $\frac{1}{2}$  roll.





## A-23.09 Inverted Spin two and a half turns

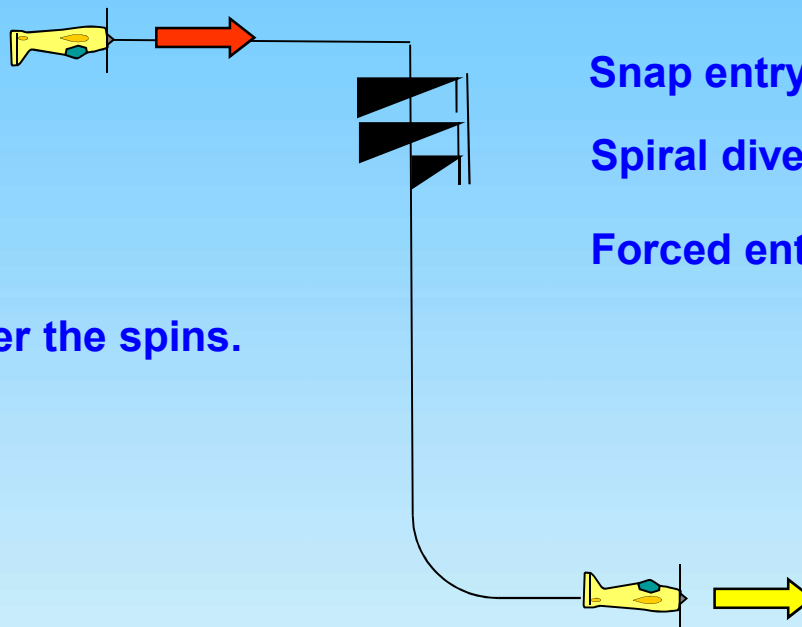


From inverted, perform an inverted spin with two and a half turns, perform a vertical downline, pull through a quarter loop, exit upright.





## A-23.09 Inverted Spin two and a half turns

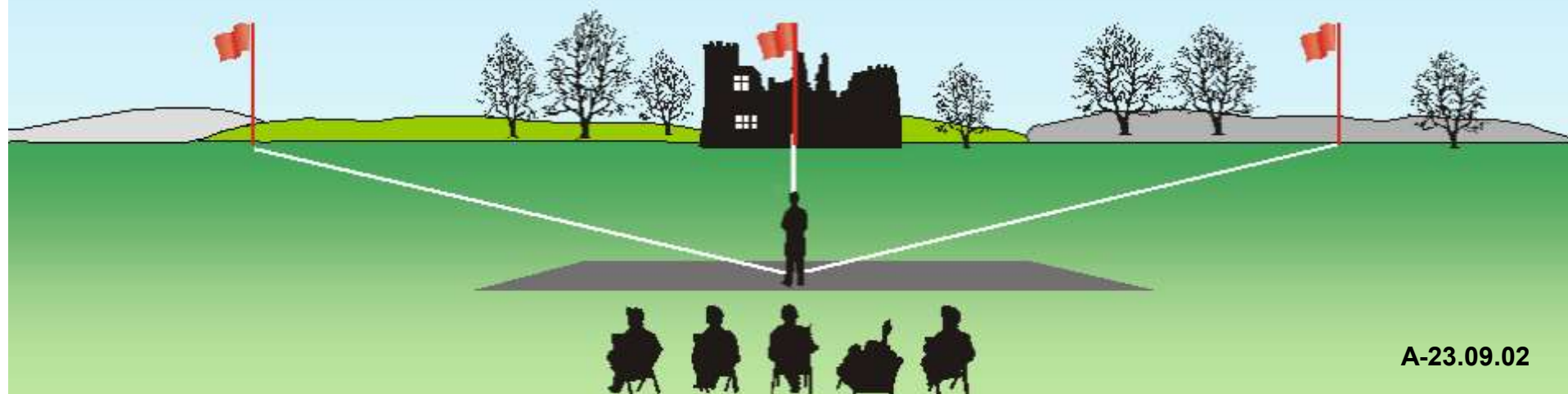


Snap entry - 0 points!

Spiral dive - 0 points!

Forced entry: downgrade.

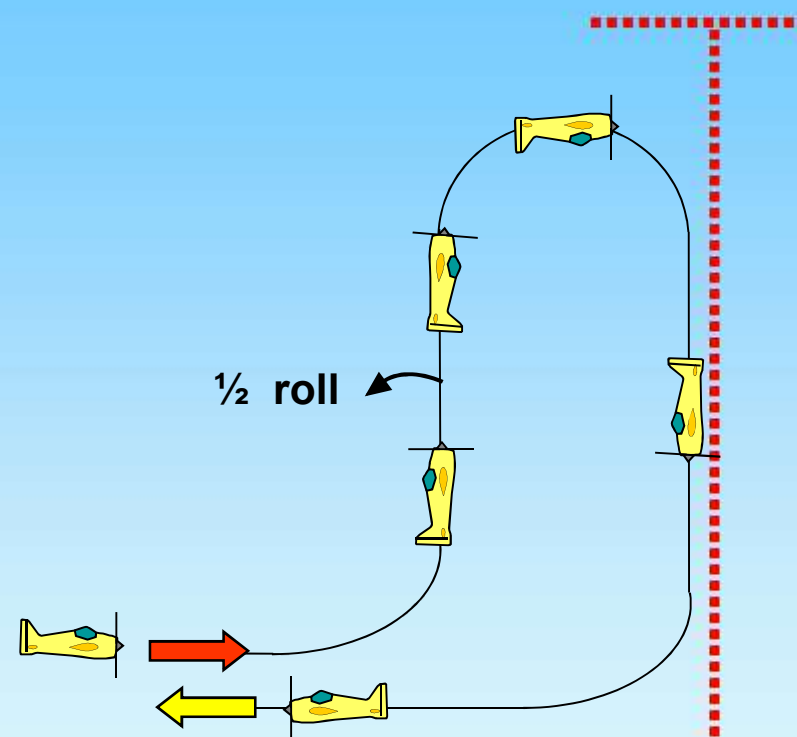
Line after the spins.







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



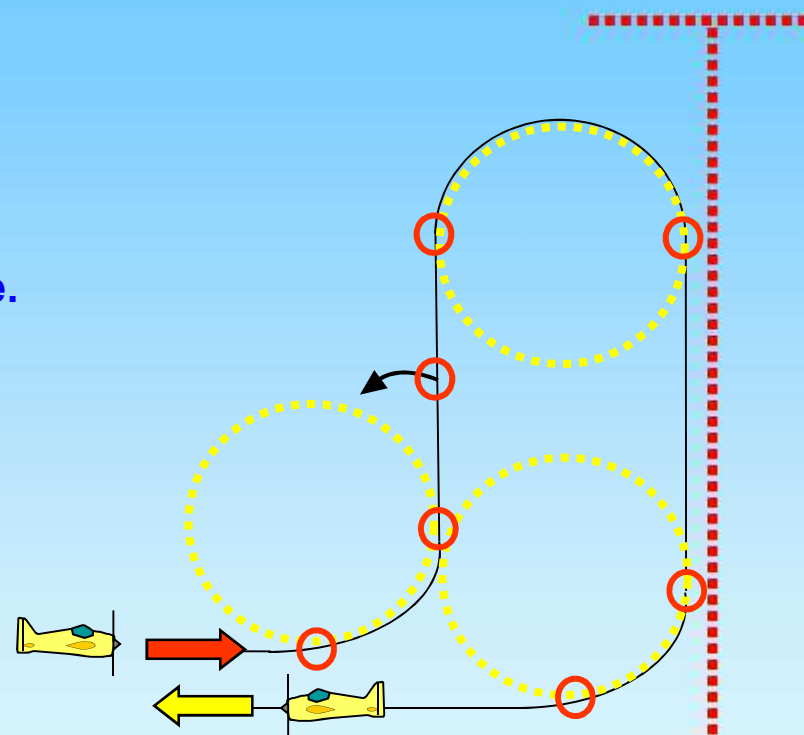
From upright, pull through a quarter loop into a vertical upline, perform a half roll, pull through a half loop into a vertical downline, pull through a quarter loop, exit upright.



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

$\frac{1}{2}$  roll on middle of the line.

All radii are equal.

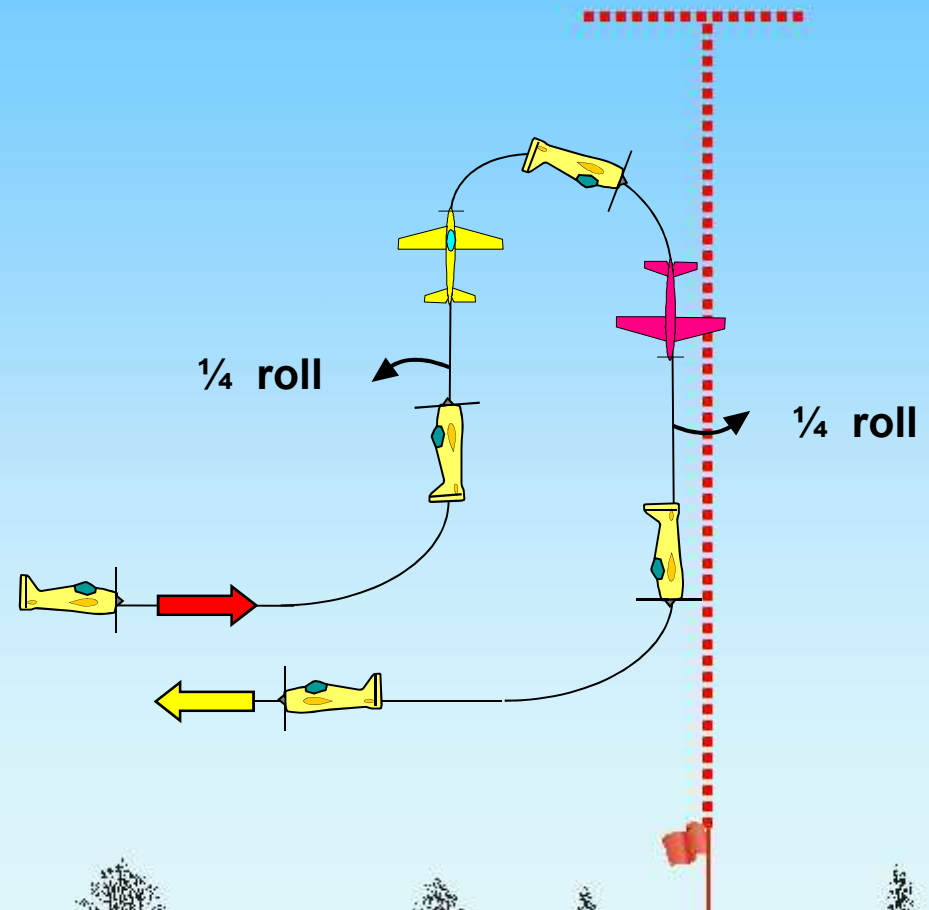






## A-23.10 Pull-Pull-Pull Humpty-Bump, with half roll. Option: (quarter roll, quarter roll)

Option



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.

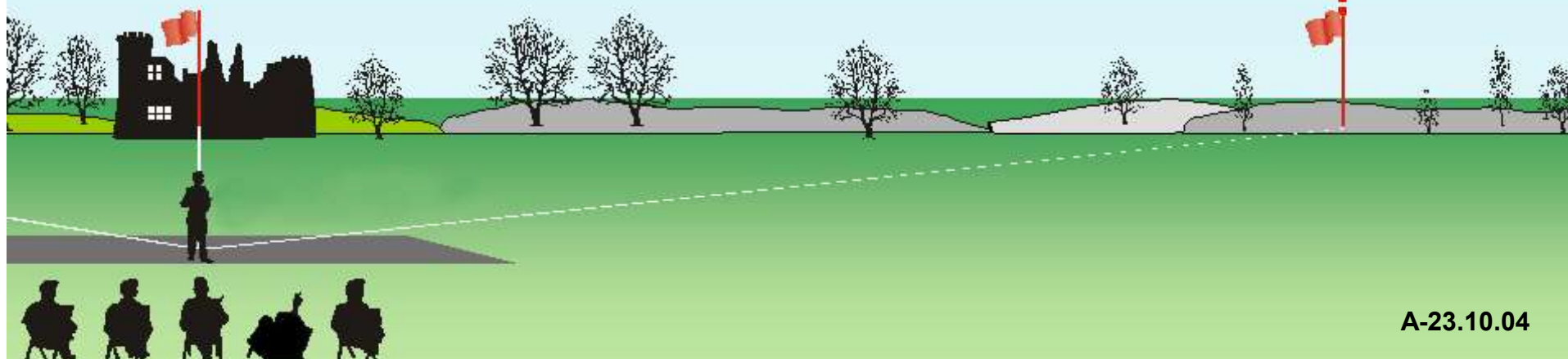
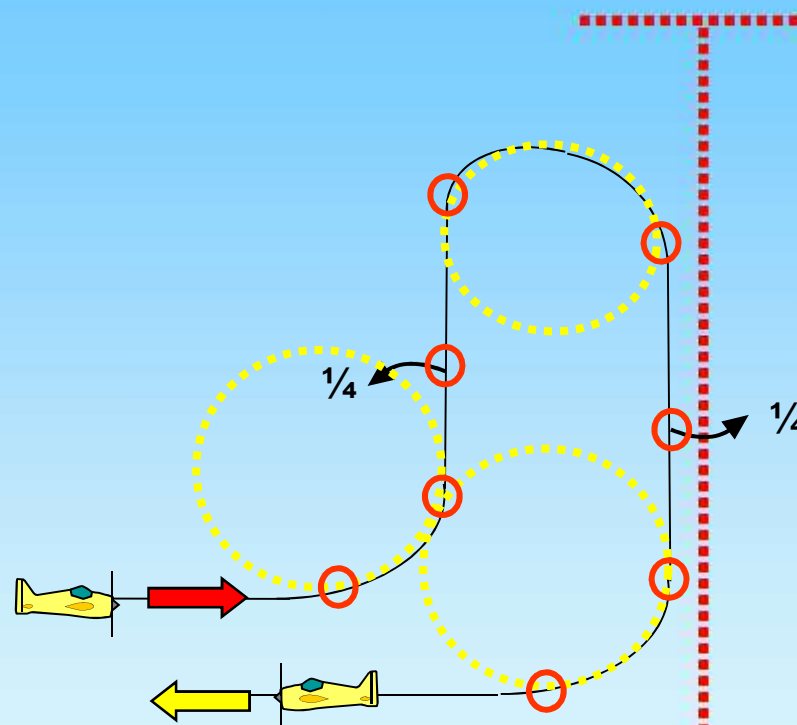


## A-23.10 Pull-Pull-Pull Humpty-Bump, with half roll. Option: (quarter roll, quarter roll)

Option

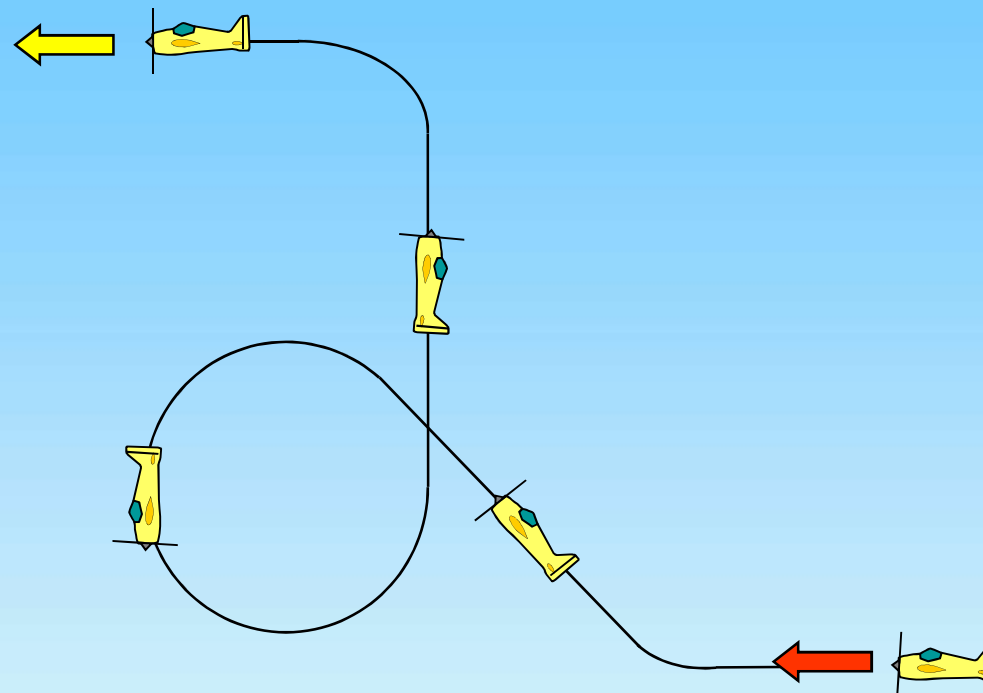
Rolls on middle of the line.

All radii are equal.





## A-23.11 Reverse Figure ET

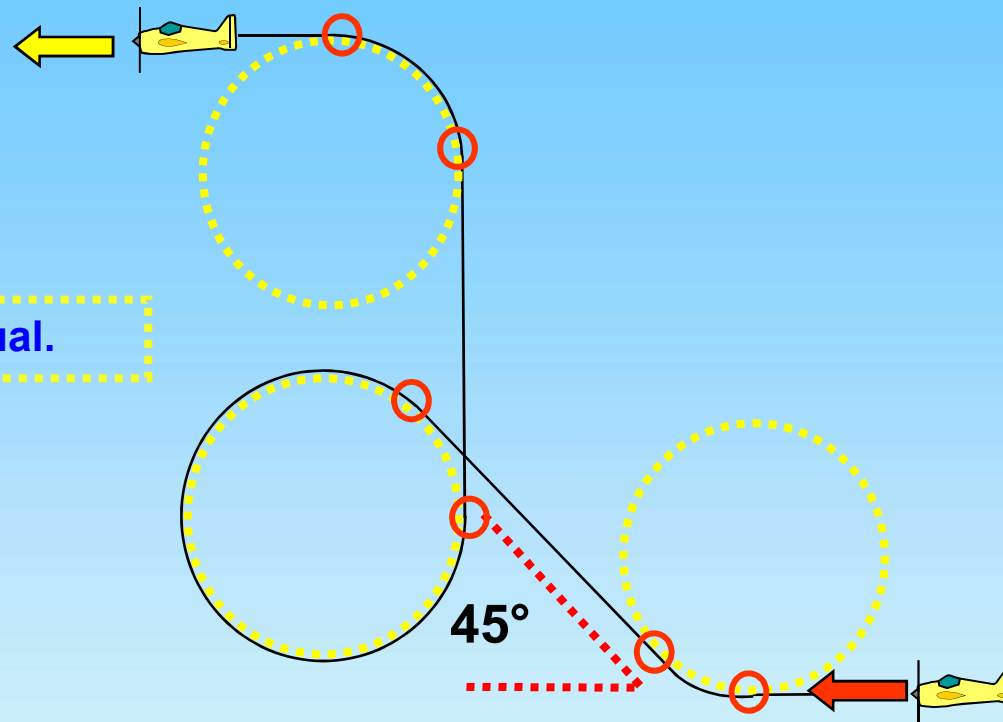


From upright pull through a one eighth loop into a forty five degree upline, push through a seven eighths loop into a vertical upline, push through a quarter loop , exit upright.  
*(Note: The vertical line must be in the center.)*



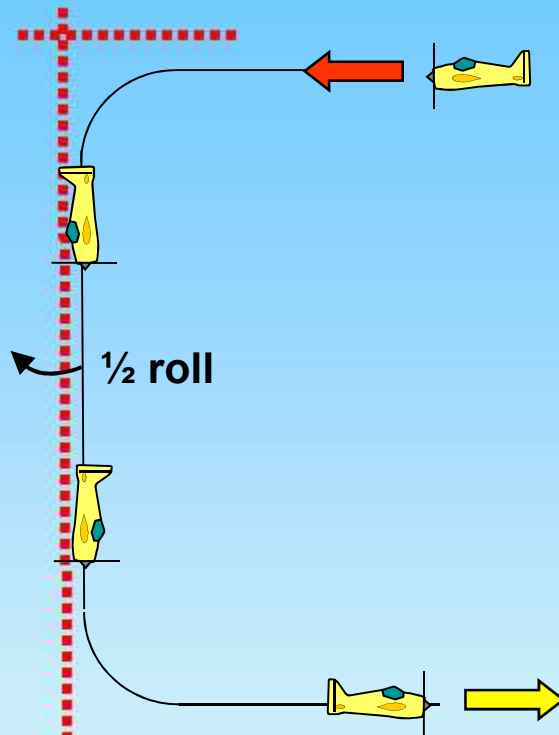
## A-23.11 Reverse Figure ET

All radii are equal.





## A-23.12 Half Square Loop with half roll

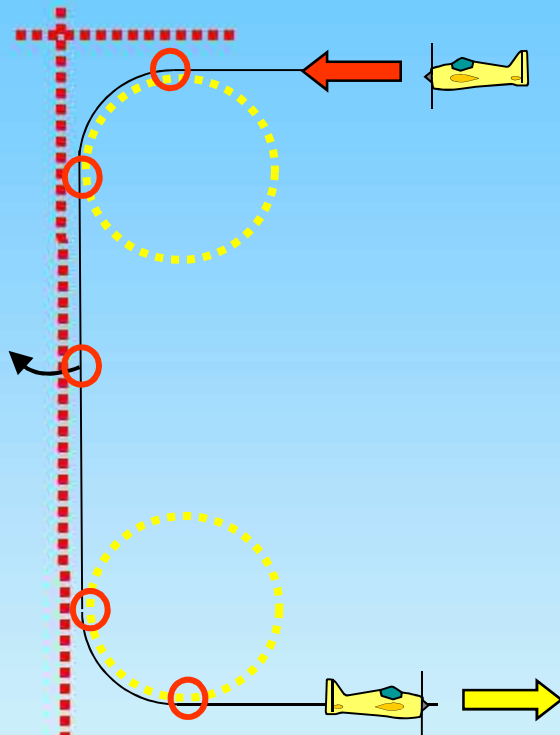


From upright push through a quarter loop into a vertical downline, perform a half roll, pull through a quarter loop, exit upright.





## A-23.12 Half Square Loop with half roll



$\frac{1}{2}$  roll on middle of the line.

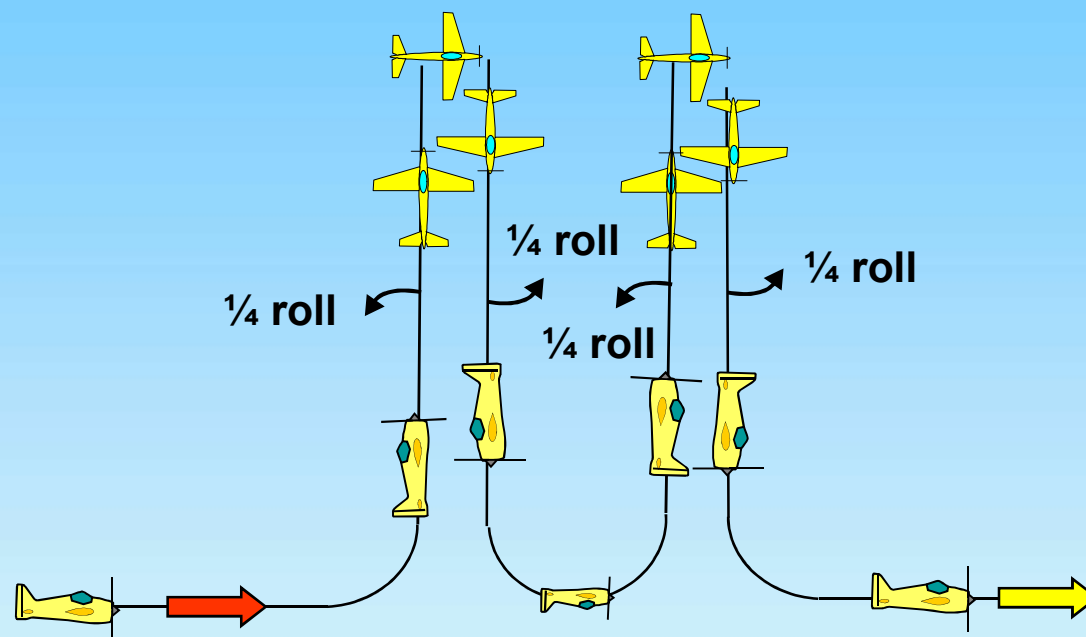
All radii are equal.







## A-23.13 Figure M, with quarter rolls



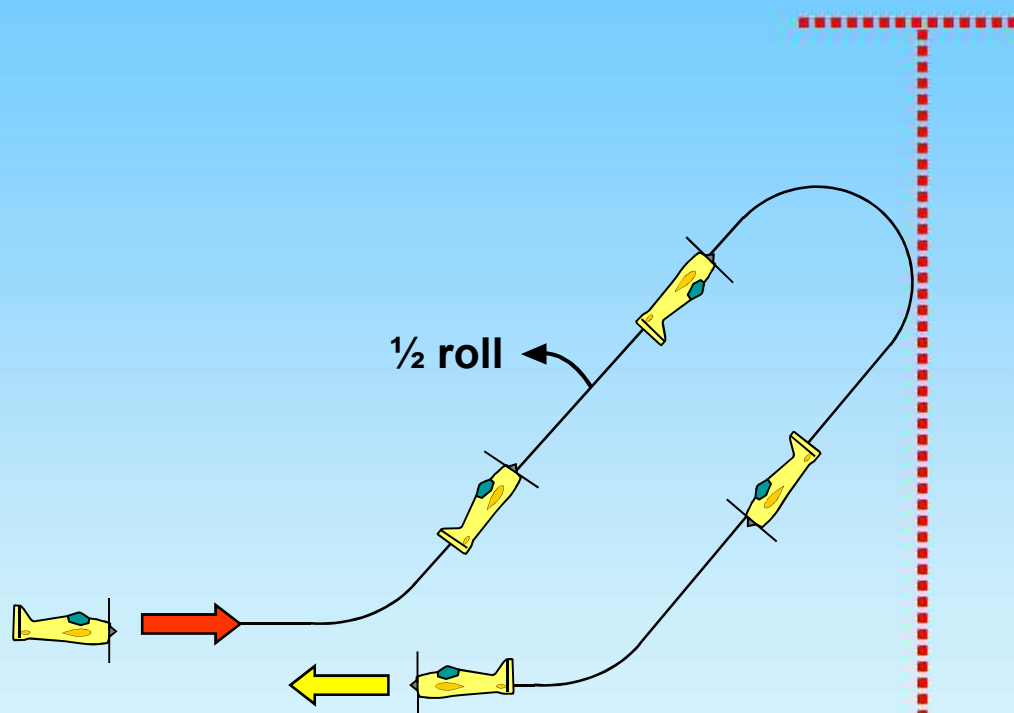
From upright pull through a quarter loop into a vertical upline, perform a quarter roll, perform a stall turn into a vertical downline, perform a quarter roll, push through a half loop into a vertical upline, perform a quarter roll, perform a stall turn to a vertical downline, perform a quarter roll,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







## A-23.14 Trombone



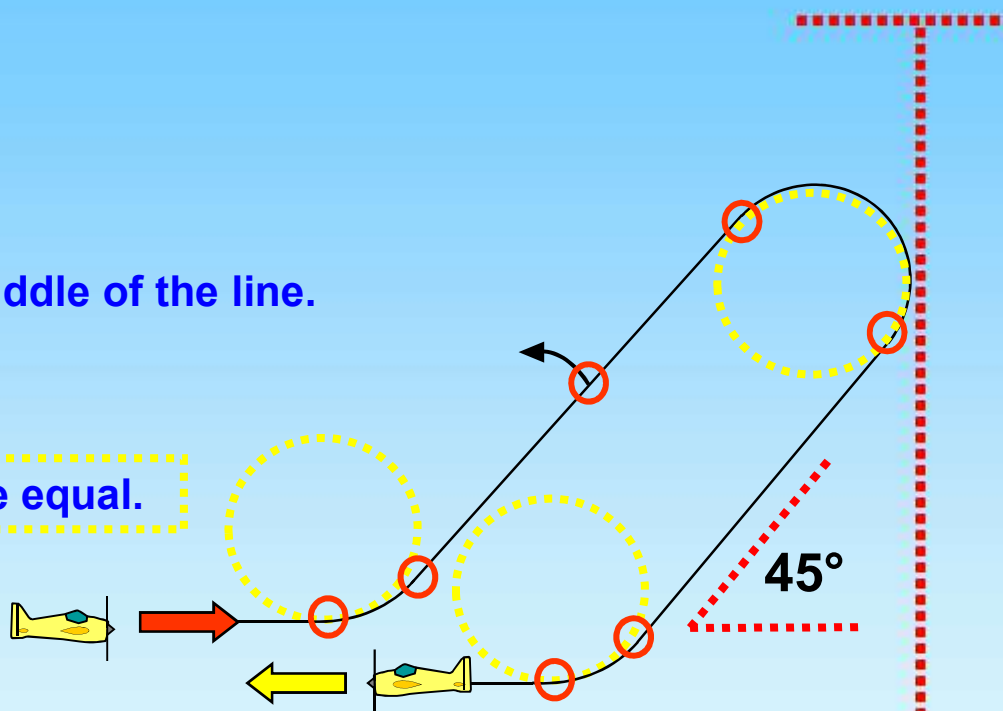
From upright pull through a one eighth loop into a forty five degree upline, perform a half roll, pull through a half loop into a forty five degree downline, pull through a one eighth loop, exit upright.



## A-23.14 Trombone

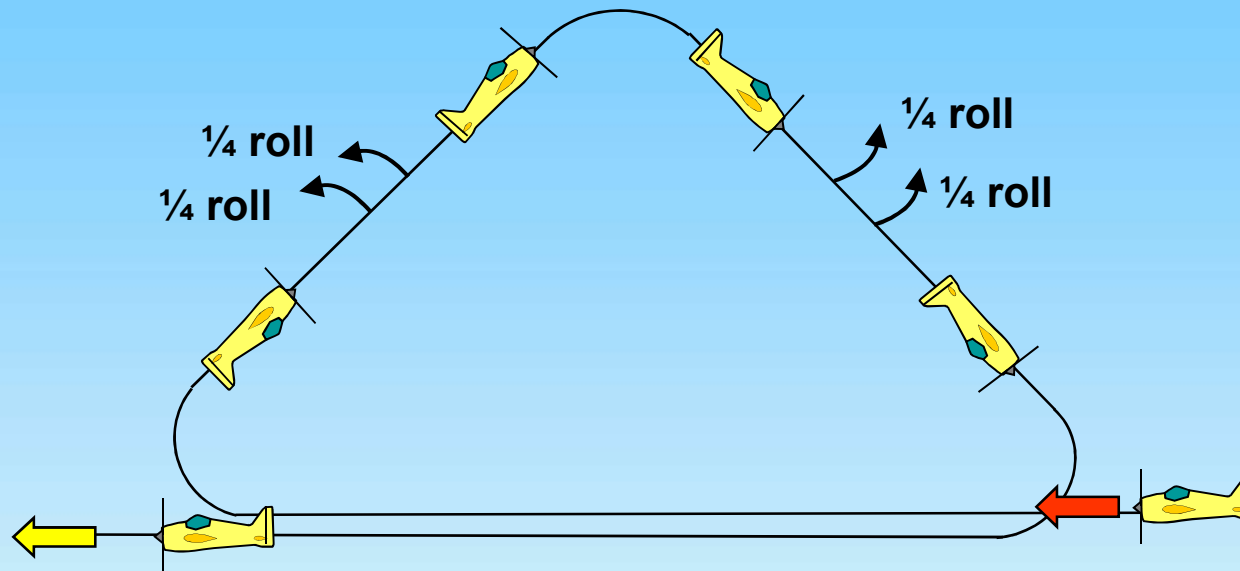
$\frac{1}{2}$  roll on middle of the line.

All radii are equal.





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



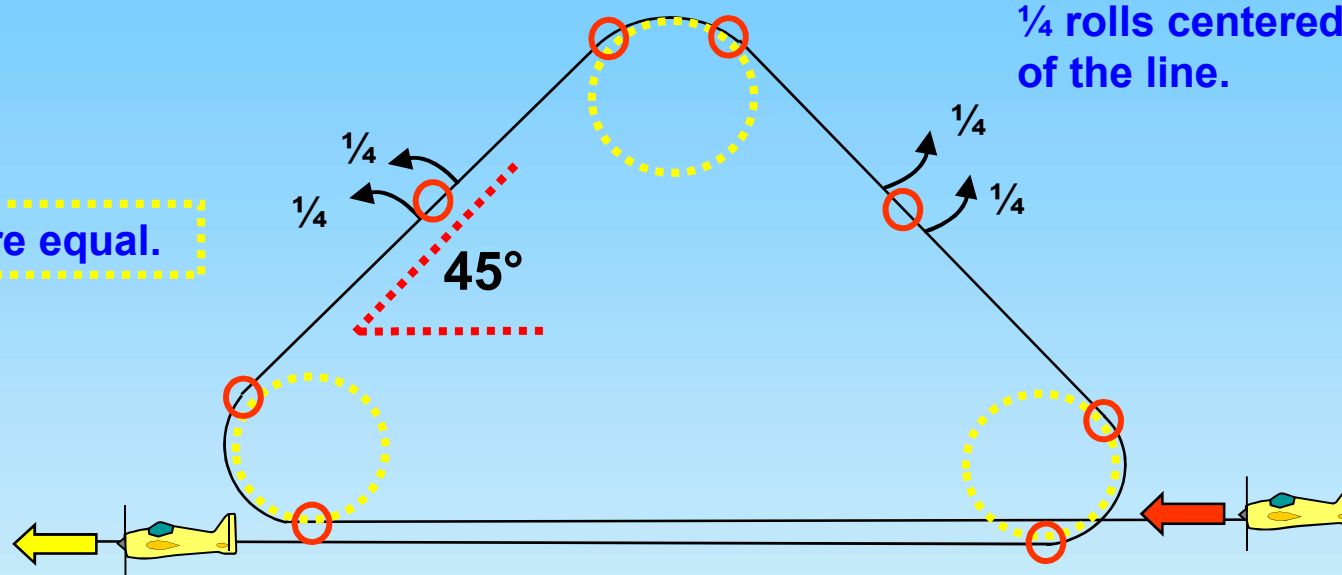
From upright, pull through a three eighths loop into a forty five degree upline, perform consecutively two quarter rolls, push through quarter loop into a forty five degree downline, perform consecutively two quarter rolls, pull through a three eighths loop, exit upright.



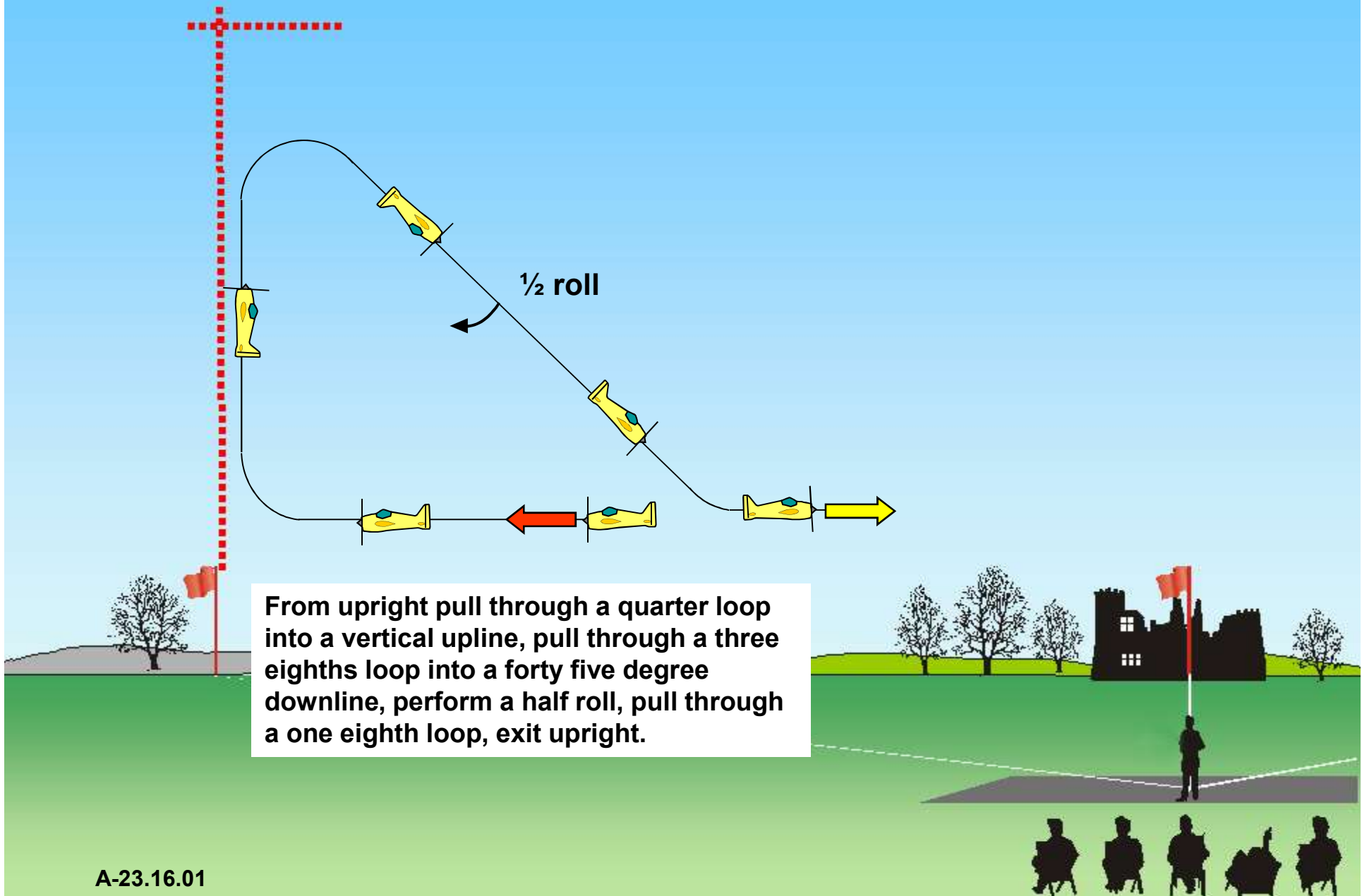
## A-23.15 Triangle with two consecutive quarter rolls, two consecutive quarter rolls

All radii are equal.

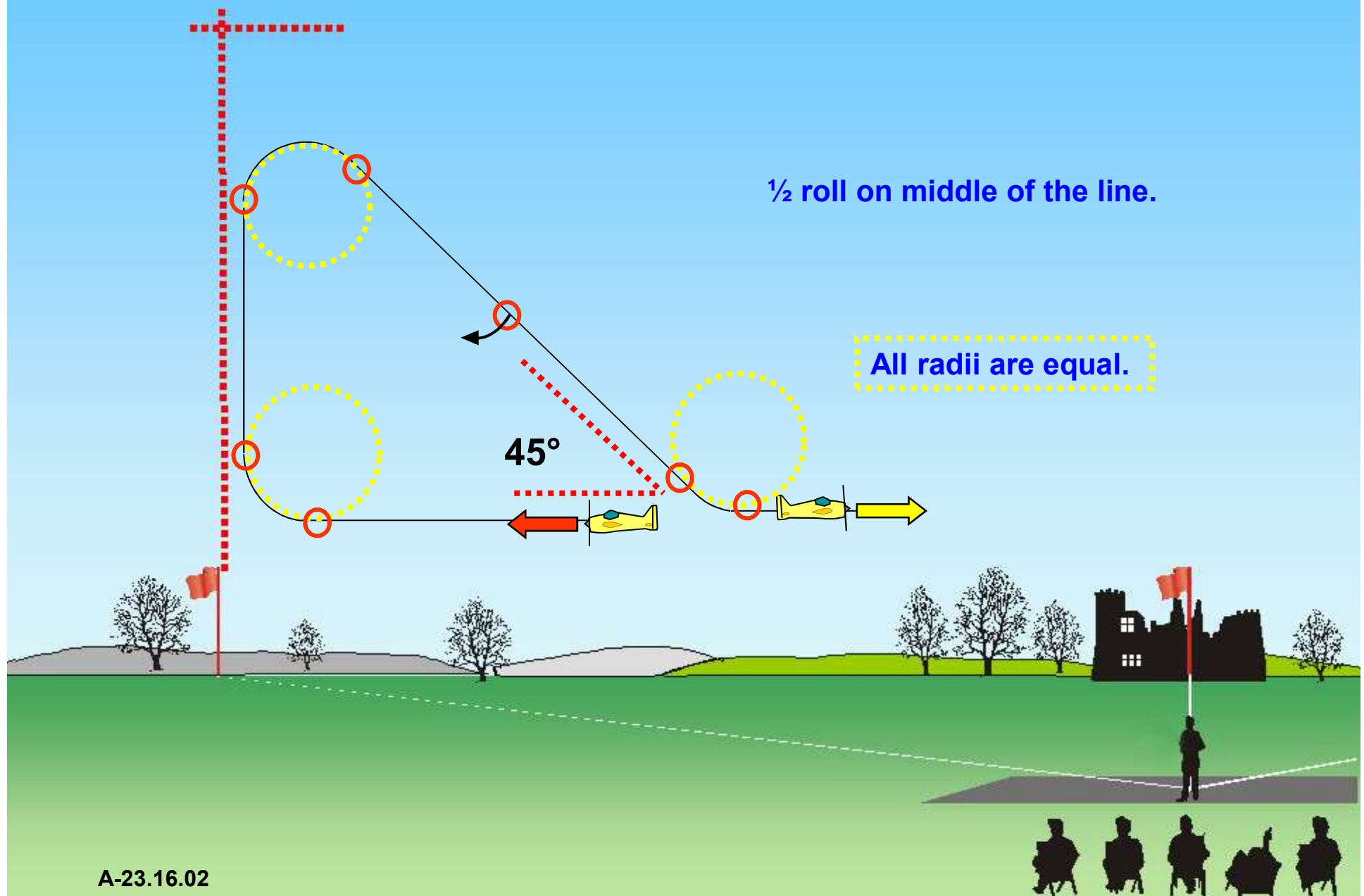
$\frac{1}{4}$  rolls centered on middle of the line.



## A-23.16 Reverse Shark Fin with half roll



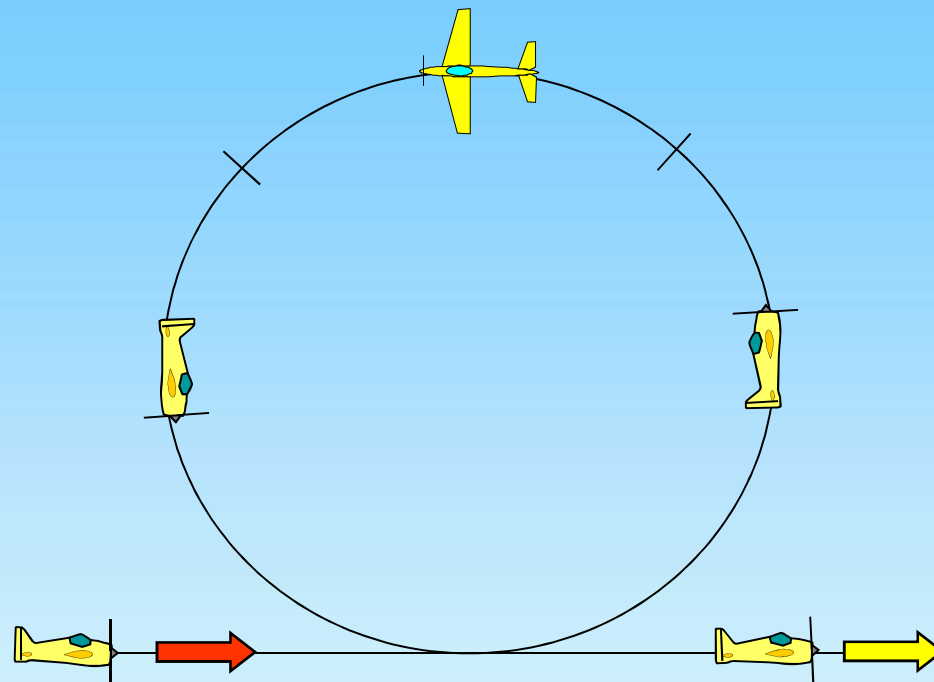
## A-23.16 Reverse Shark Fin with half roll







## A-23.17 Loop with Knife-Edge Flight

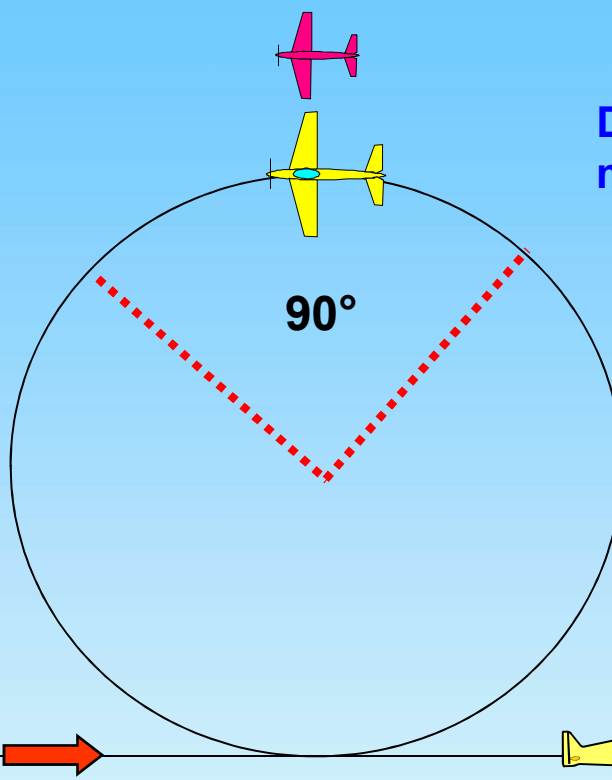


From upright pull through a loop with a knife-edge flight over the top ninety degrees, exit upright.



## A-23.17 Loop with Knife-Edge Flight

Loop must be round.



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

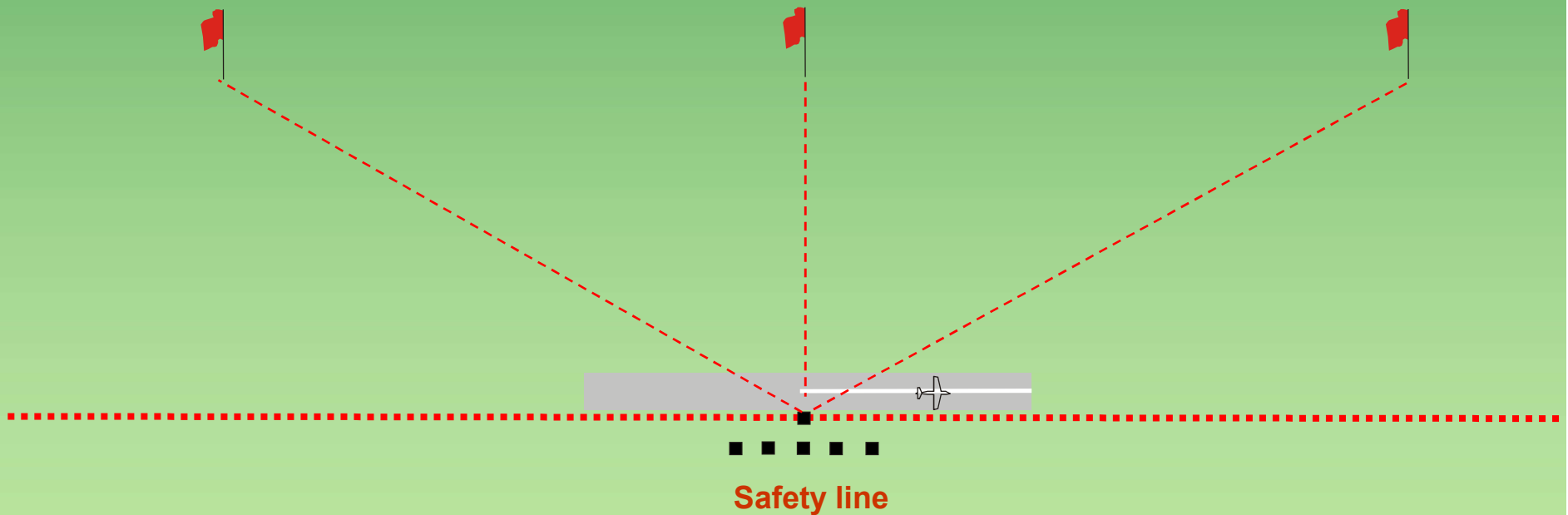






## Landing procedure ( not judged, not scored )

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



**Forget WHO is flying**

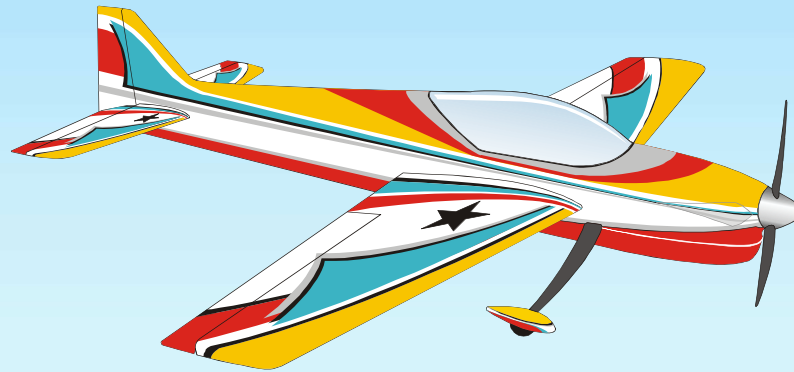
(friend, rival, countryman, flier from other nation)

**Forget WHAT is flying**

(2-stroke, 4-stroke, electric)

**LOOK ONLY AT LINES DESCRIBED IN THE  
SKY!**

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



**Thank you!**

© Peter Uhlig, March 2020