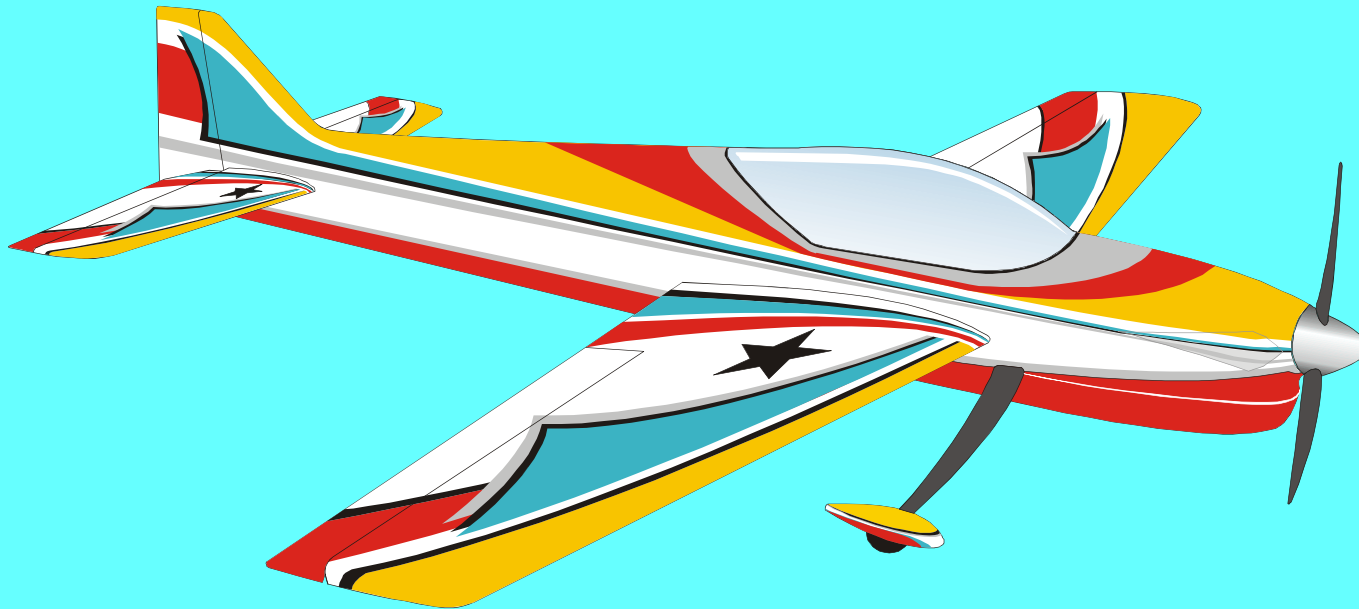


# Flying and Judging F3A

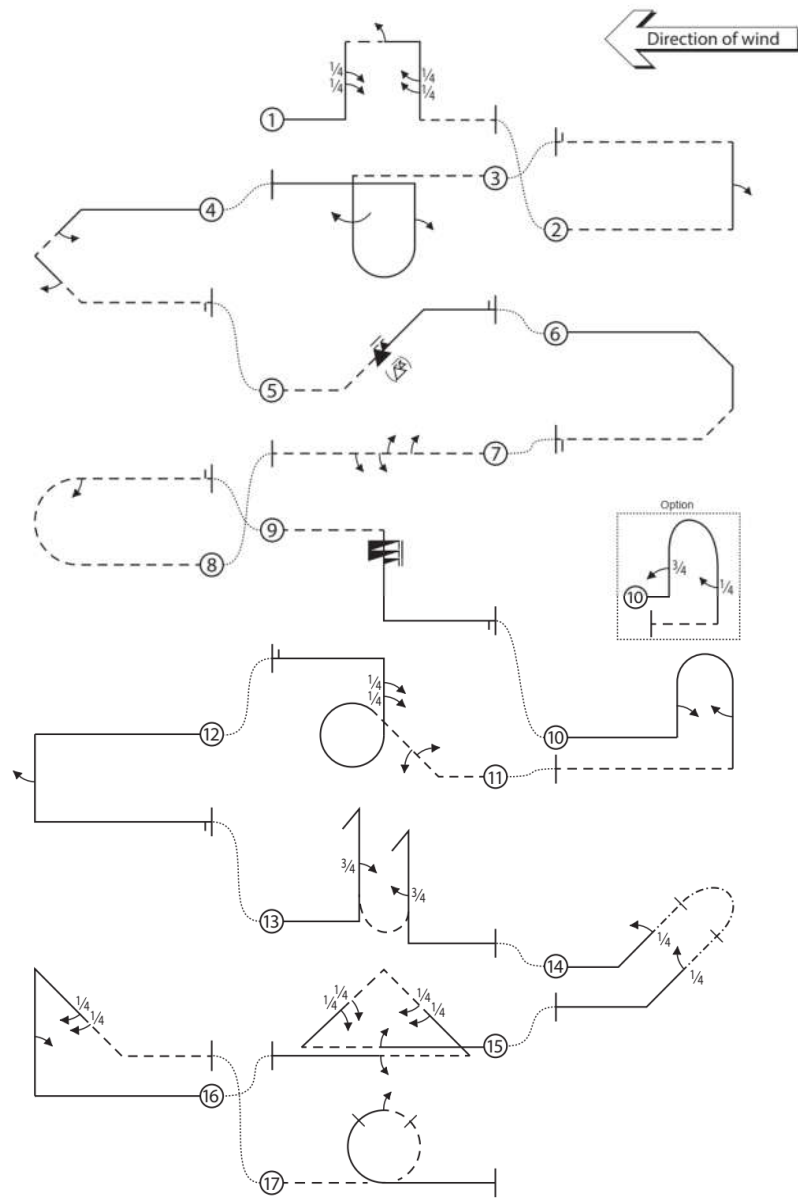
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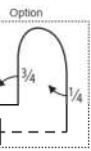
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**SCHEMATIC MANOEUVRE ILLUSTRATIONS**  
**SCHEDULE P-23**

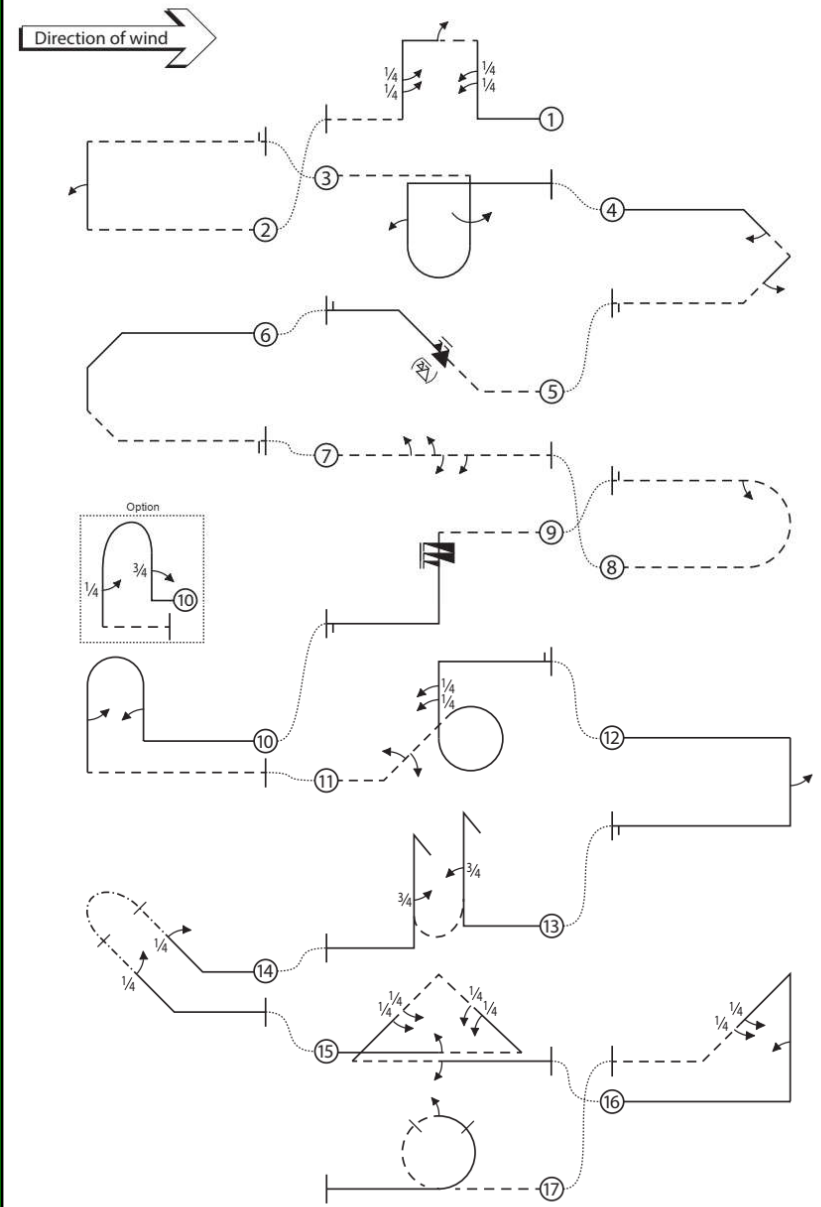
PRELIMINARY SCHEDULE P-23 (2022-2023)



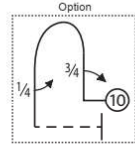
Direction of wind ←



PRELIMINARY SCHEDULE P-23 (2022-2023)

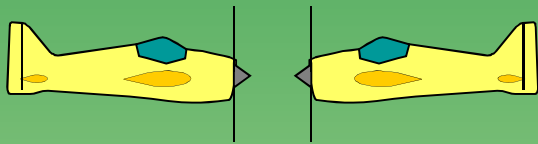


Direction of wind →

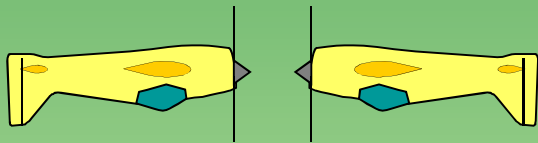




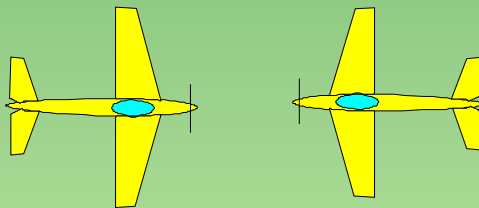
# Explanations:



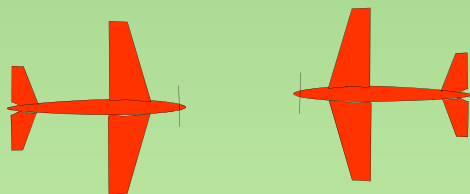
**Aircraft upright**



**Aircraft inverted**



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



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

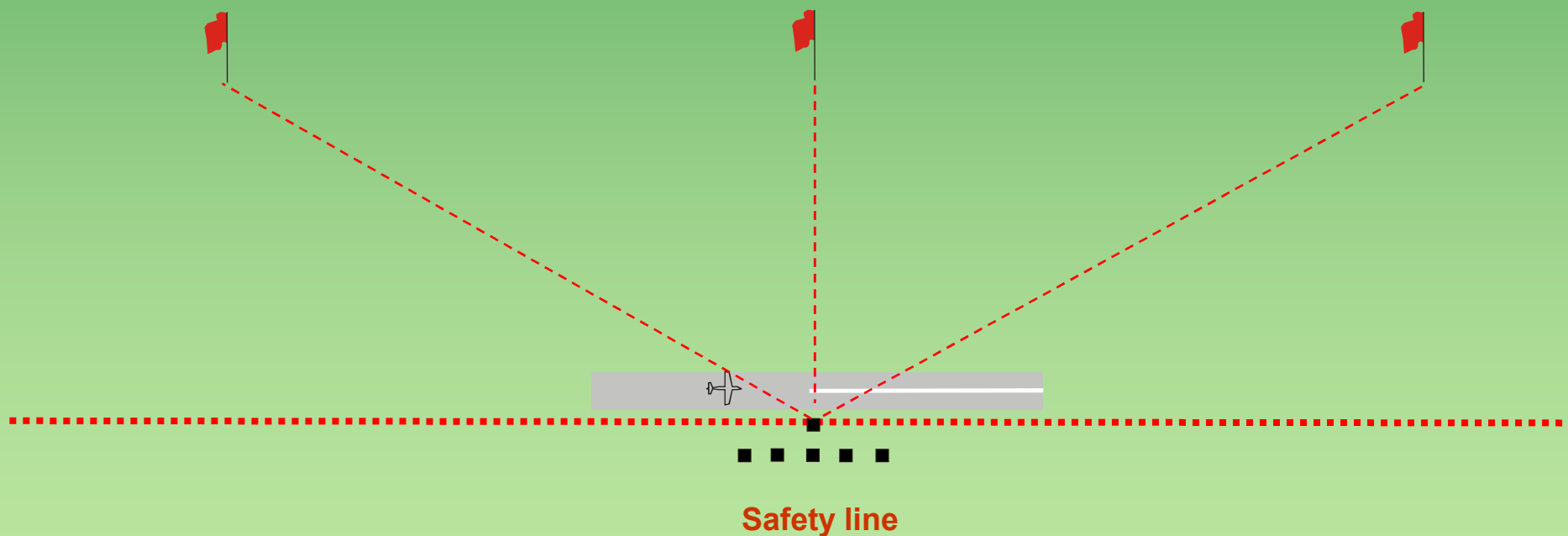


**Reference points**



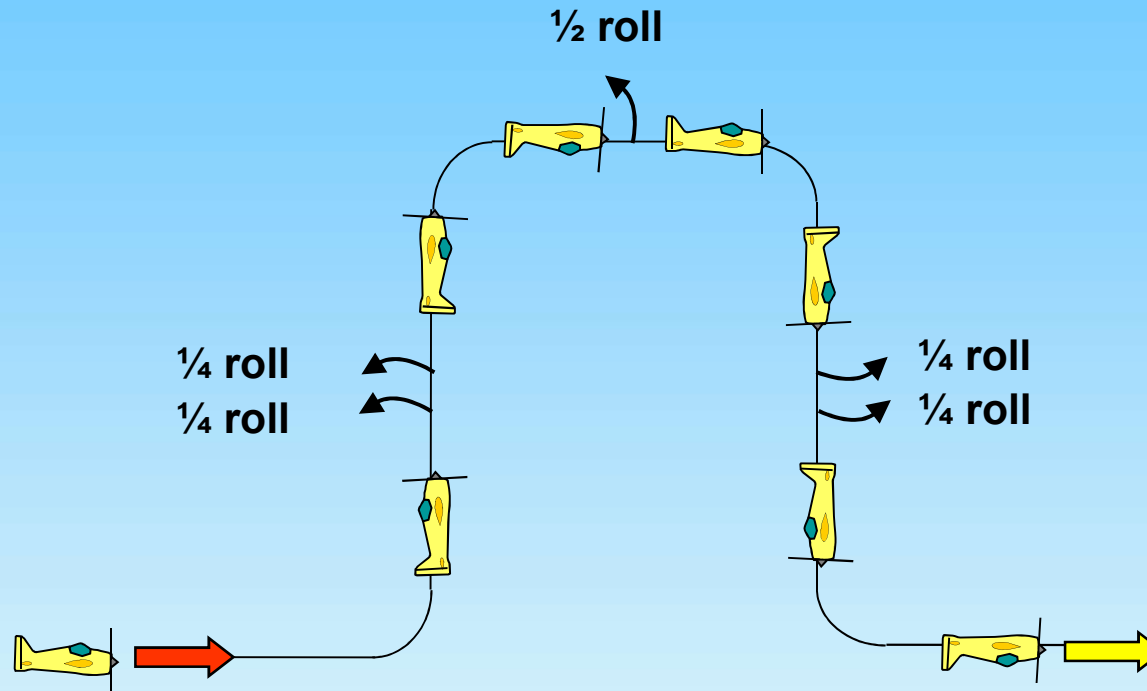
# Take-off procedure ( not judged, not scored )

← wind





## P-23.01 Top Hat with two quarter rolls up, half roll, two quarter rolls down



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

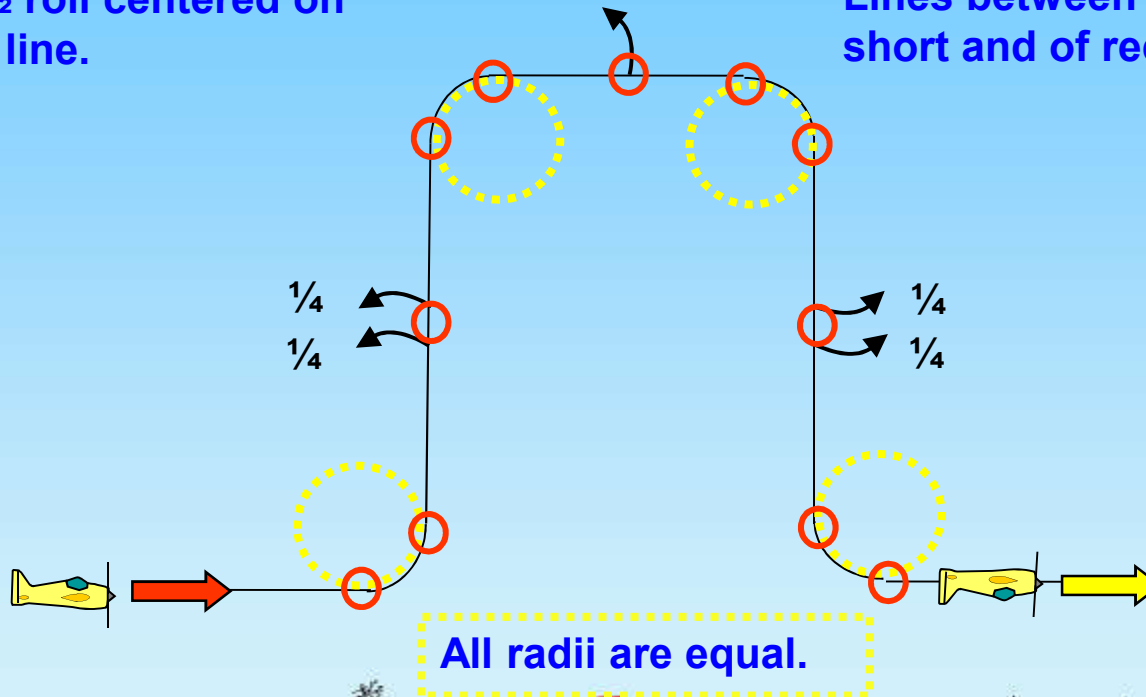




## P-23.01 Top Hat with two quarter rolls up, half roll, two quarter rolls down

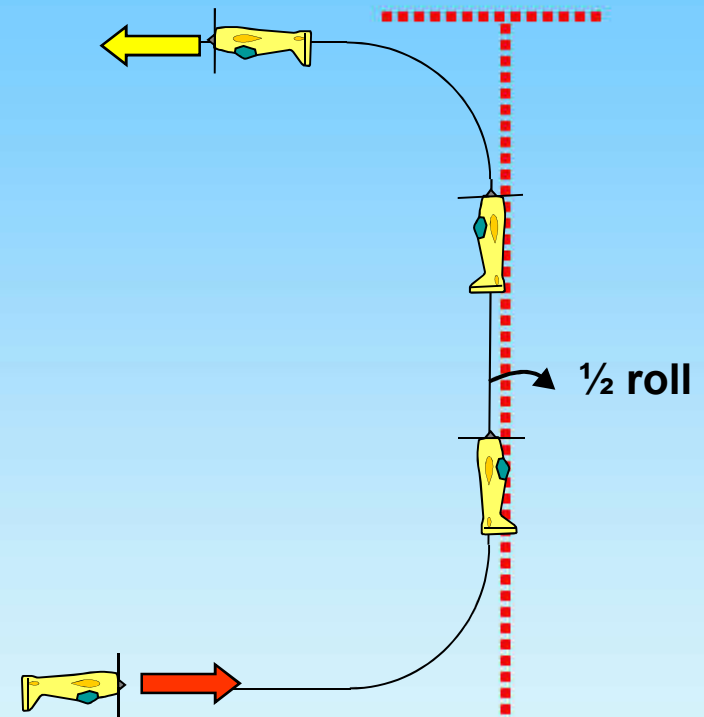
$\frac{1}{4}$  rolls and  $\frac{1}{2}$  roll centered on middle of the line.

Lines between part rolls must be short and of recognisable length.





## P-23.02 Half Square Loop with half roll



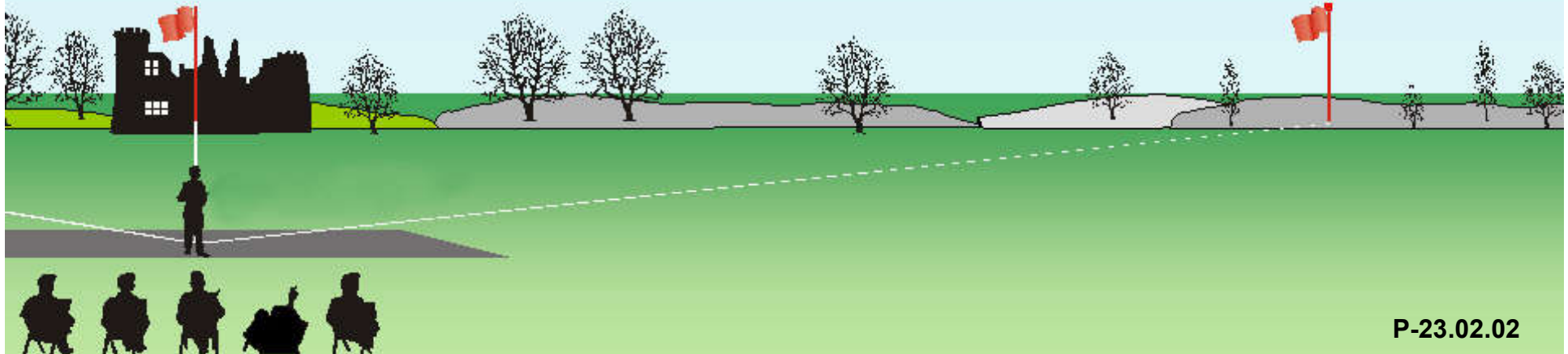
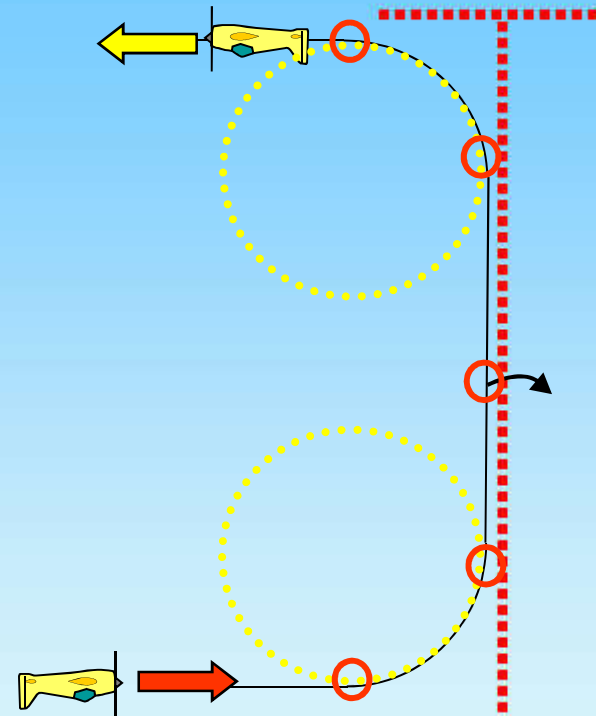
From inverted, push through a quarter loop into a vertical upline, perform a half roll, pull through a quarter loop, exit inverted.



## P-23.02 Half Square Loop with half roll

½ roll on middle of the line.

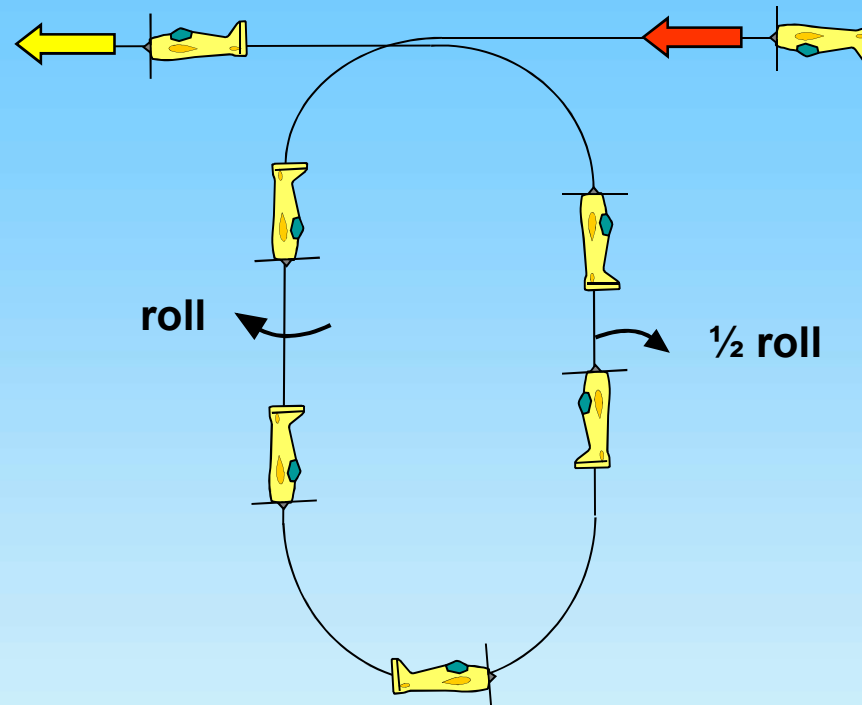
All radii are equal.







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

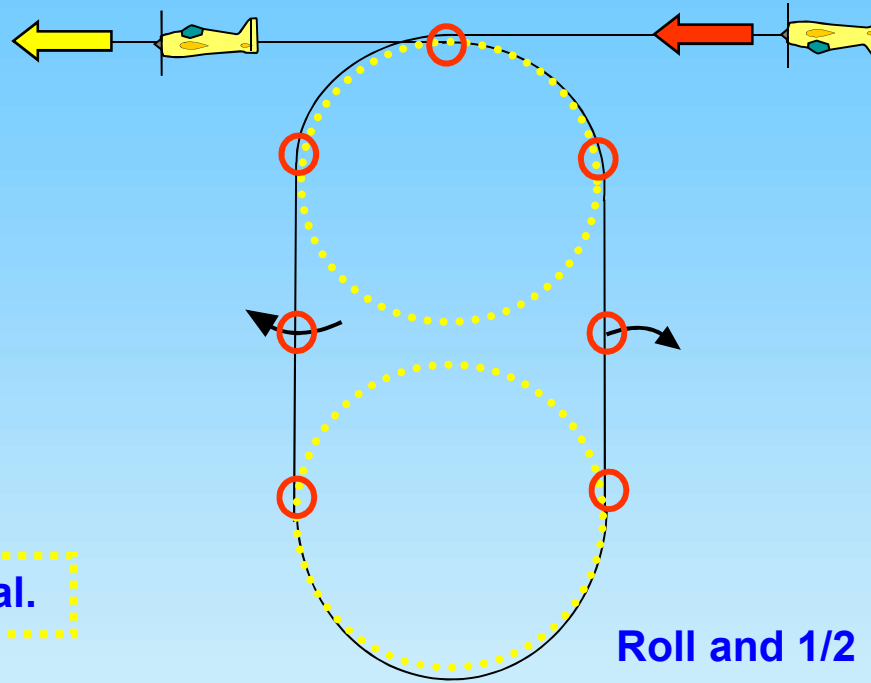


From inverted, fly past center pull through a quarter loop into a vertical downline, perform a roll, pull through a half loop into a vertical upline, perform a half roll, push through a quarter loop, exit upright.





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



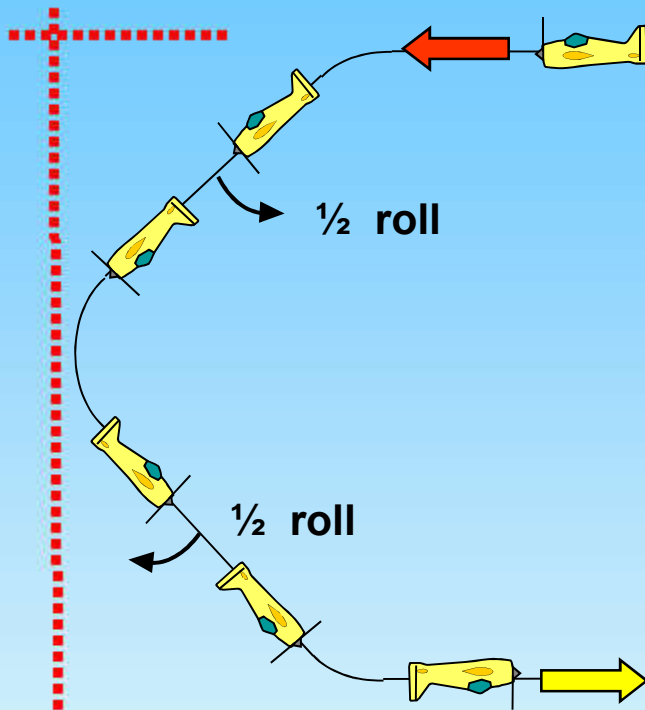
All radii are equal.

Roll and 1/2 roll on middle of the line.





## P-23.04 Half Square Loop on Corner with half roll, half roll-



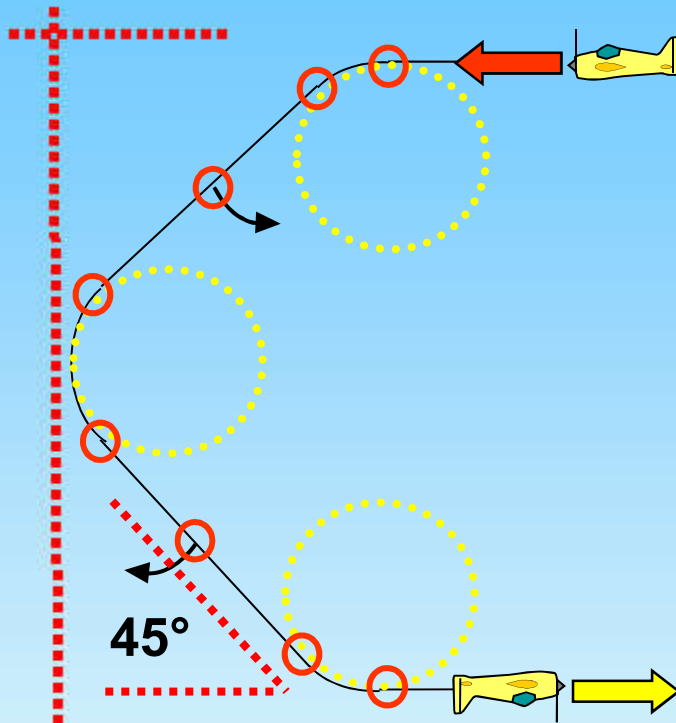
From upright, push through a one eighth loop into a forty five degree downline, perform a half roll, pull through a quarter loop into a forty five degree downline, perform a half roll, push through a one eighth loop, exit inverted.

P-23.04.01



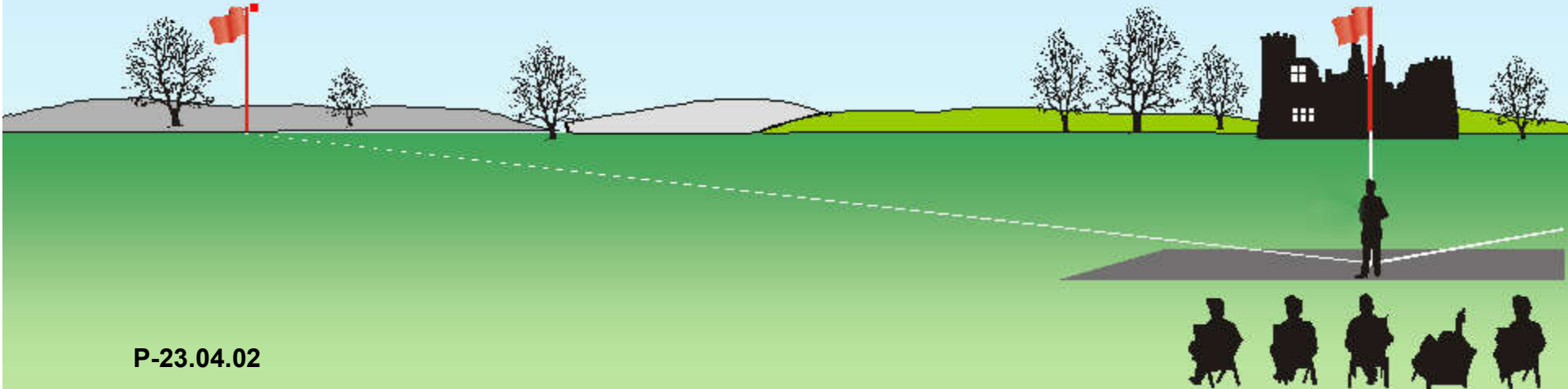


# P-23.04 Half Square Loop on Corner with half roll, half roll



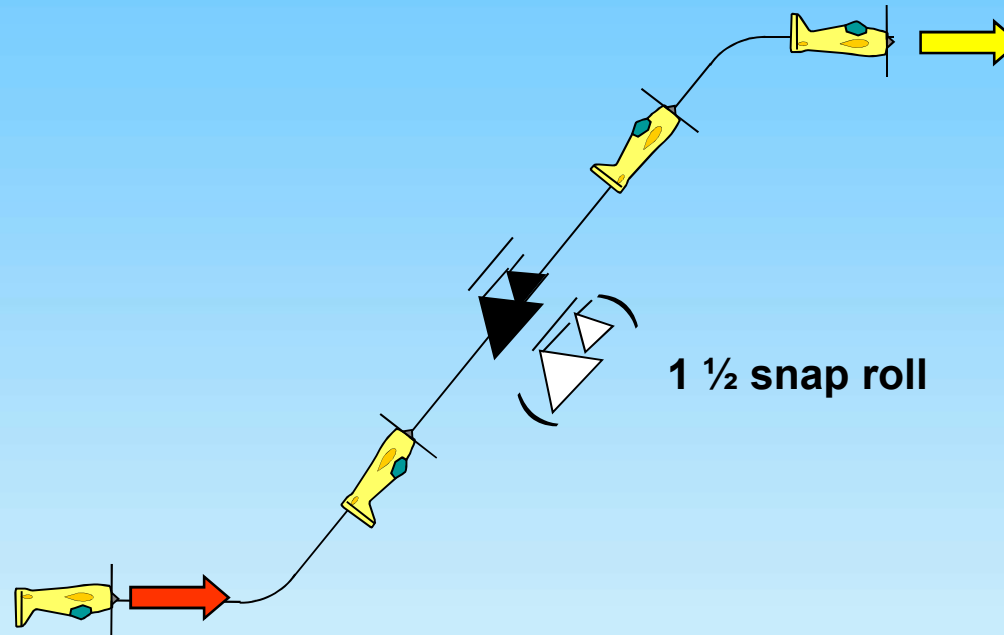
½ rolls on middle of the line.

All radii are equal.





## P-23.05 Forty Five Degree Upline, with one and a half snap roll



From inverted, push through a one eighth loop into a forty five degree upline, per- form one and a half snap roll, push through a one eighth loop, exit upright.

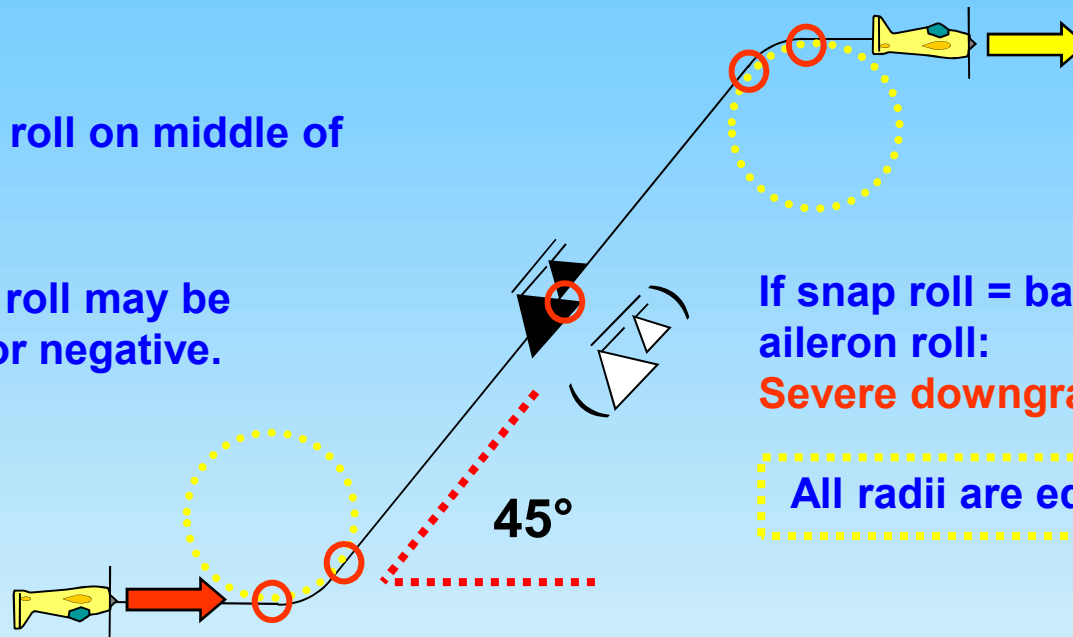




## P-23.05 Forty Five Degree Upline, with one and a half snap roll

1 ½ snap roll on middle of the line.

1 ½ snap roll may be positive or negative.



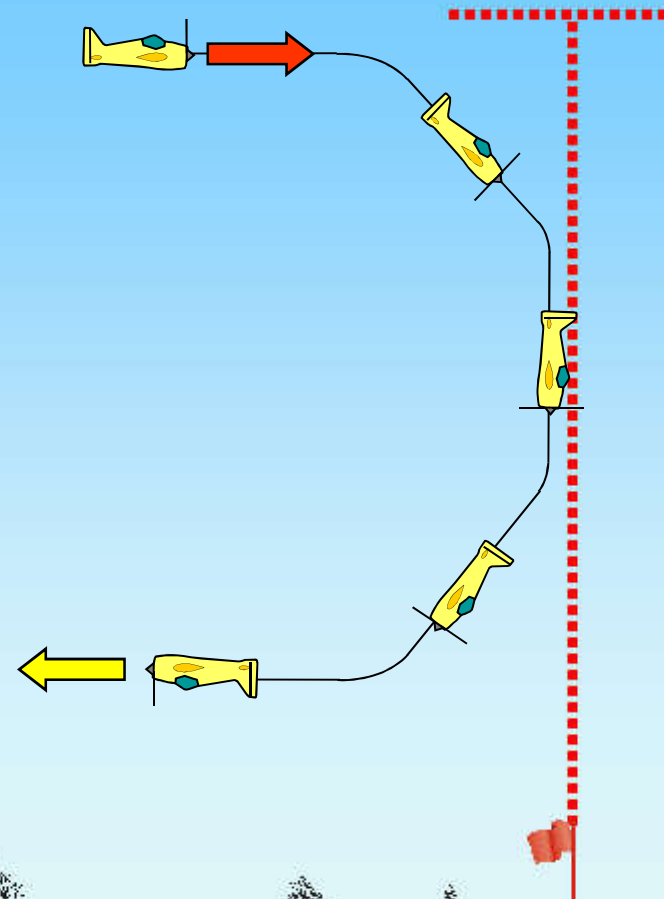
If snap roll = barrel roll or aileron roll:  
Severe downgrade > 5 pts.

All radii are equal.





## P-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.

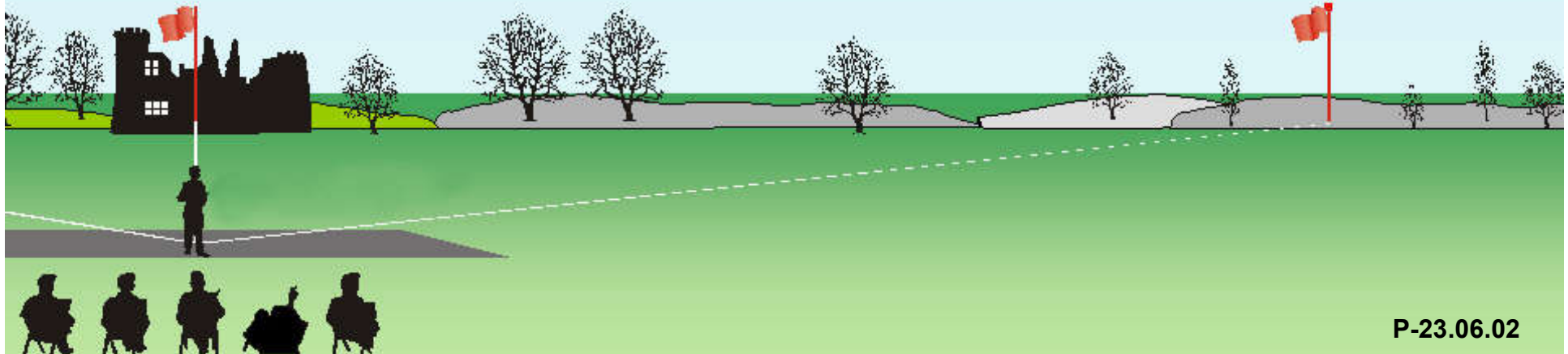
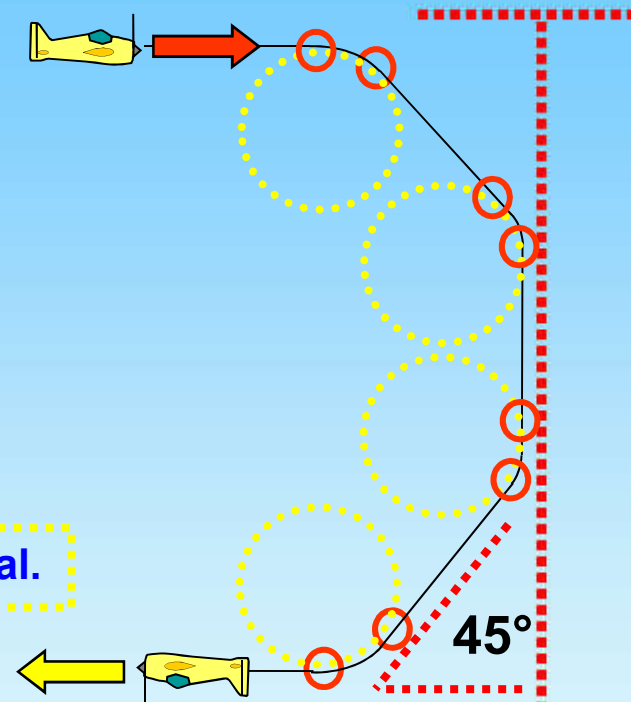




## P-23.06 Half Eight Sided Loop

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

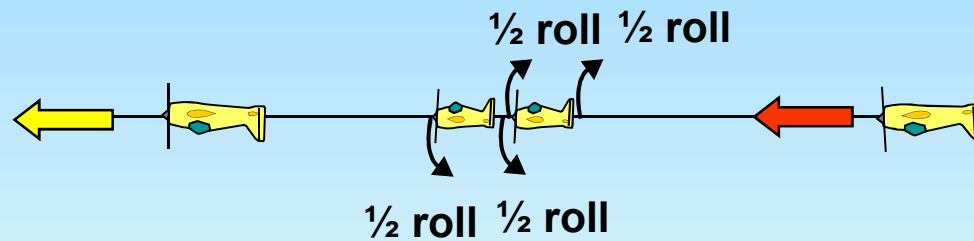
All radii are equal.







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



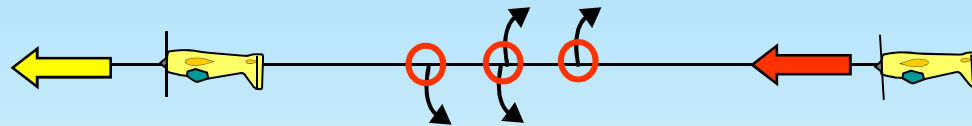
From inverted perform consecutively two half rolls, two half rolls in opposite direction, exit inverted.





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

Lines between part rolls must be short and of equal length.

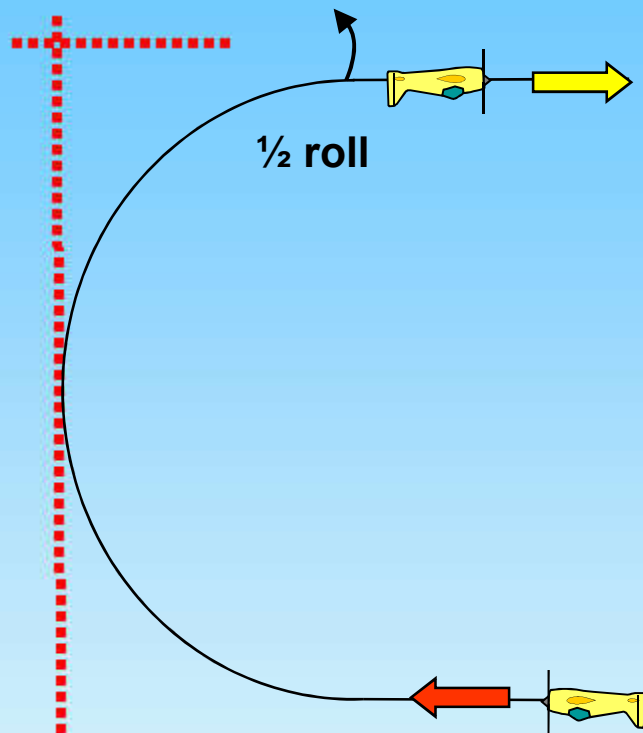


Between rolls and part rolls in opposite direction there must be no line.





## P-23.08 Pushed Immelman Turn with half roll

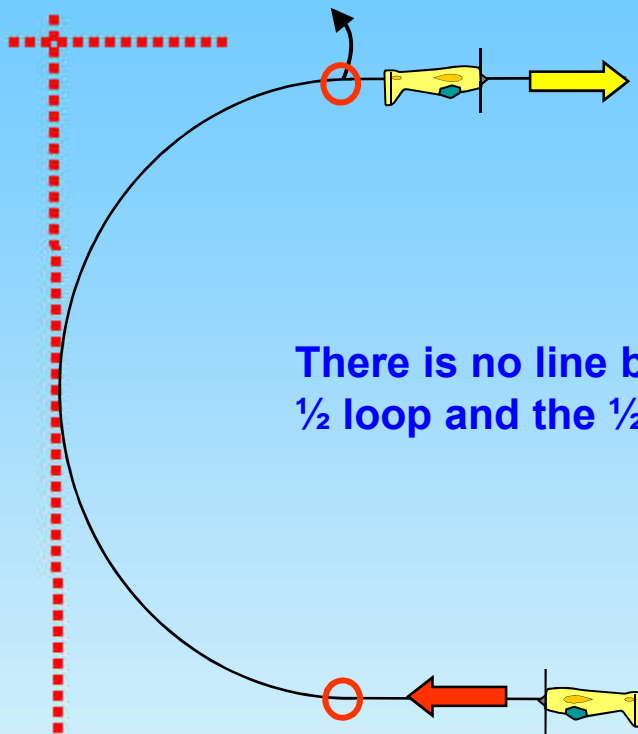


From inverted push through a half loop, perform a half roll, exit inverted .





## P-23.08 Pushed Immelman Turn with half roll

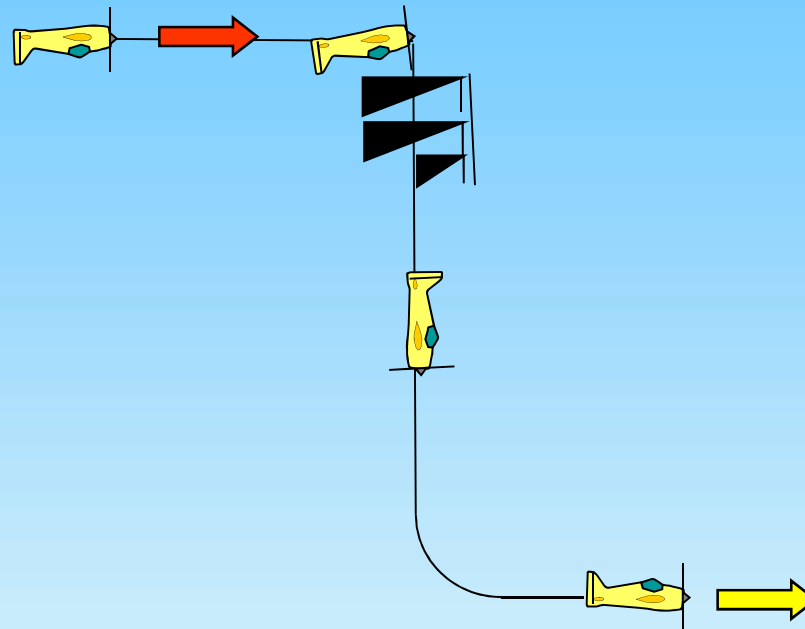


There is no line between the  $\frac{1}{2}$  loop and the  $\frac{1}{2}$  roll.





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

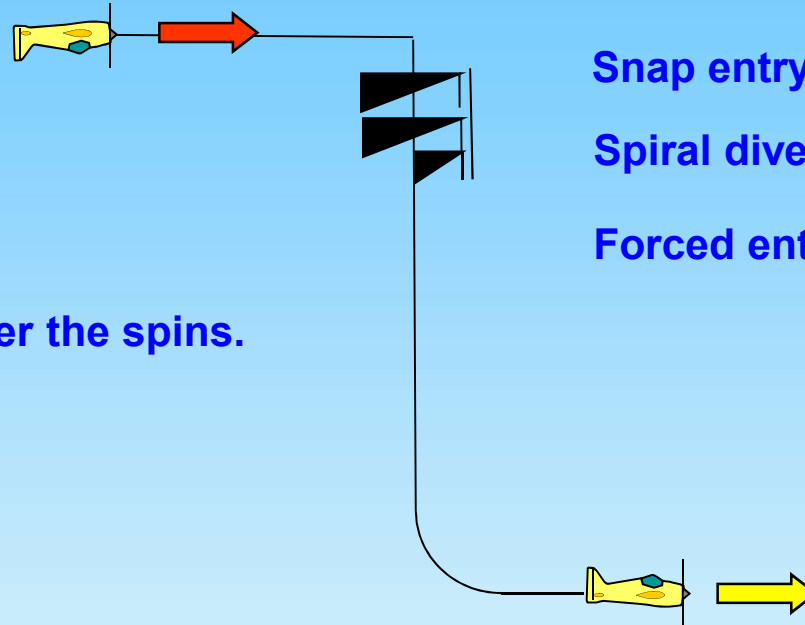


From inverted, perform an inverted spin with two and a half turns, perform a vertical downline, pull through a quarter loop, exit upright.





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



Snap entry - 0 points!

Spiral dive - 0 points!

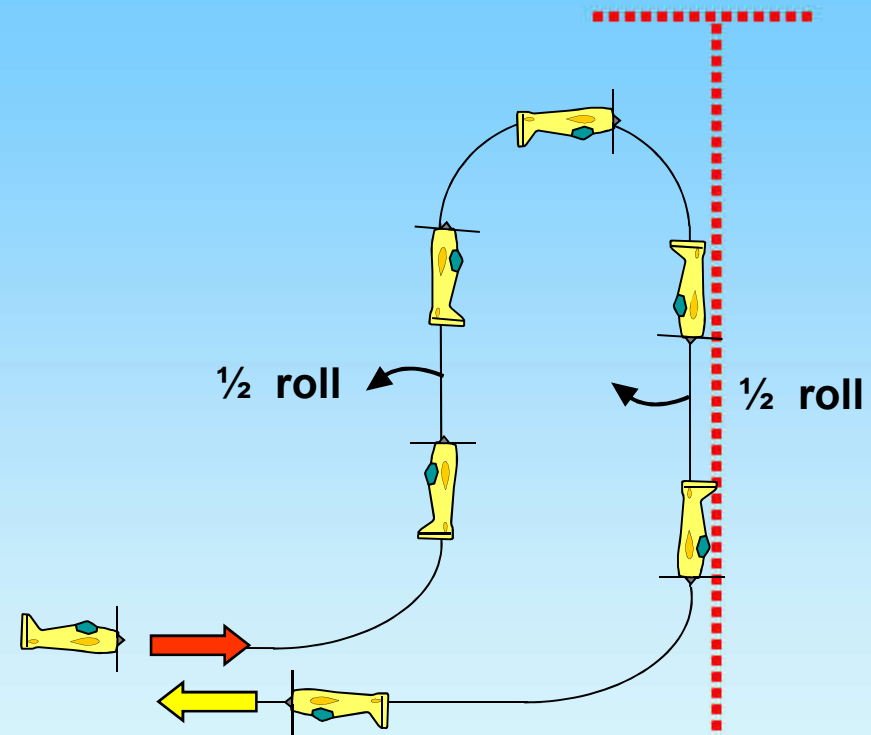
Forced entry: downgrade.

Line after the spins.





## P-23.10 Pull-Pull-Push Humpty-Bump, with half rolls. (Option: three 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, perform a half roll, push through a quarter loop, exit inverted.

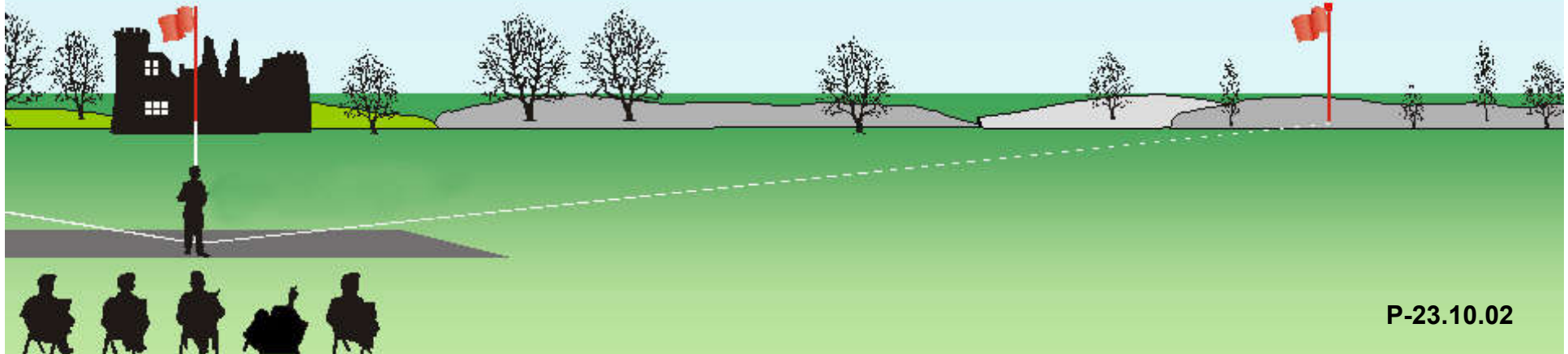
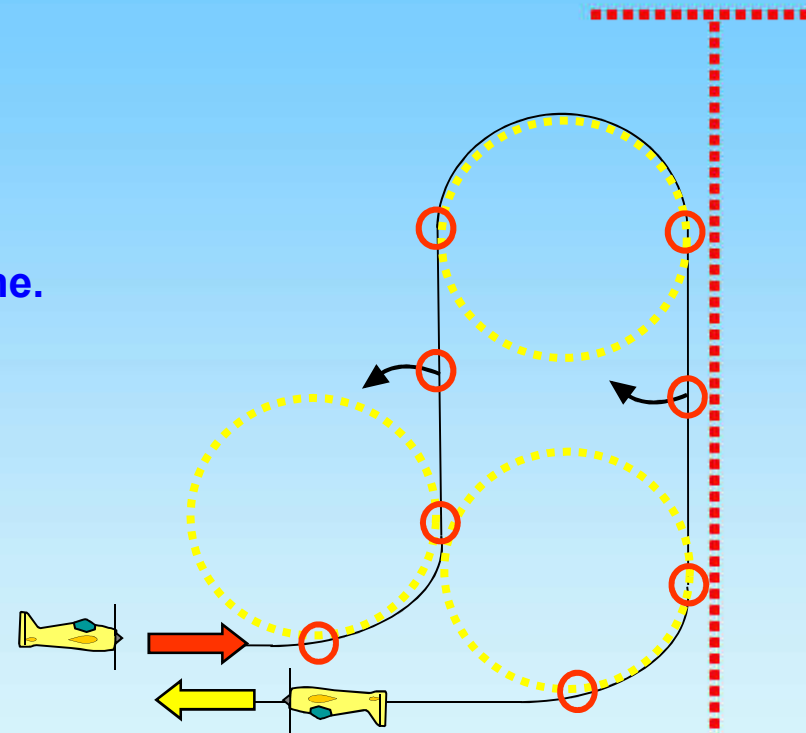




# P-23.10 Pull-Pull-Push Humpty-Bump, with half rolls. (Option: three quarter roll, quarter roll)

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

All radii are equal.

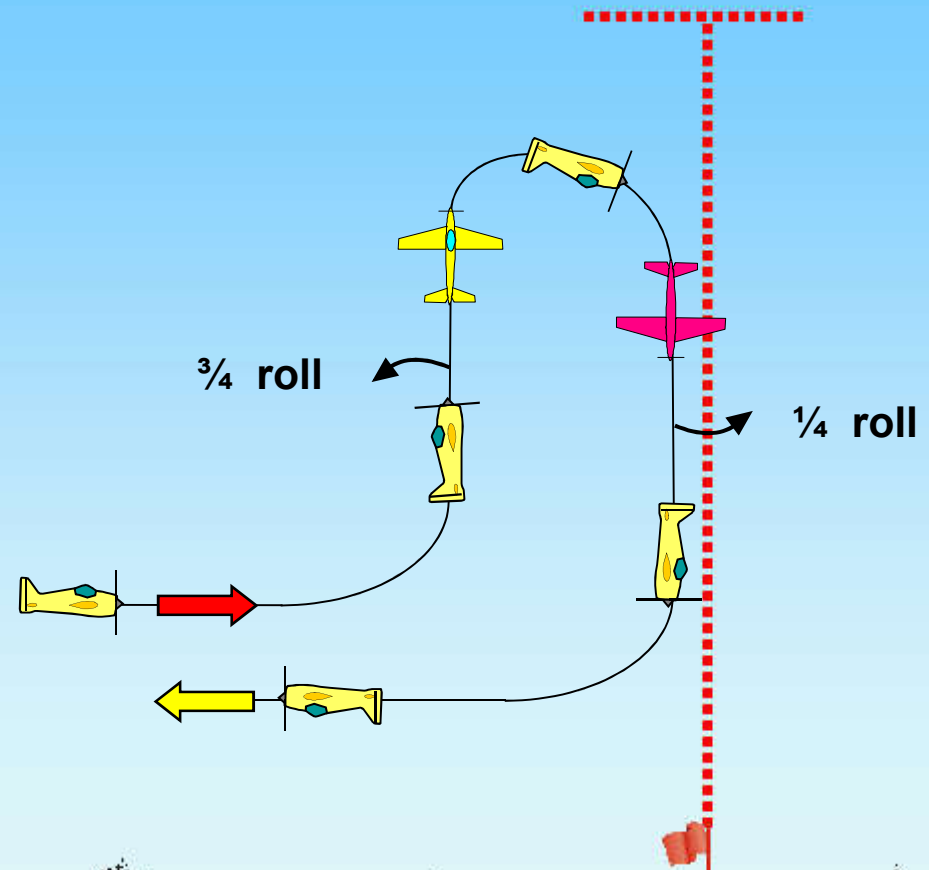






## P-23.10 Pull-Pull-Push Humpty-Bump, with half rolls. (Option: three quarter roll, quarter roll)

Option



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

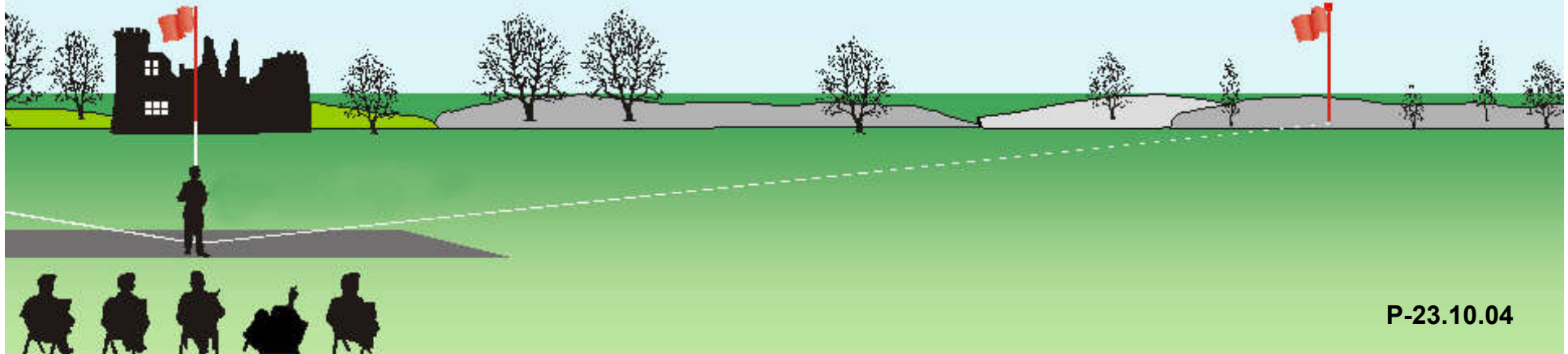
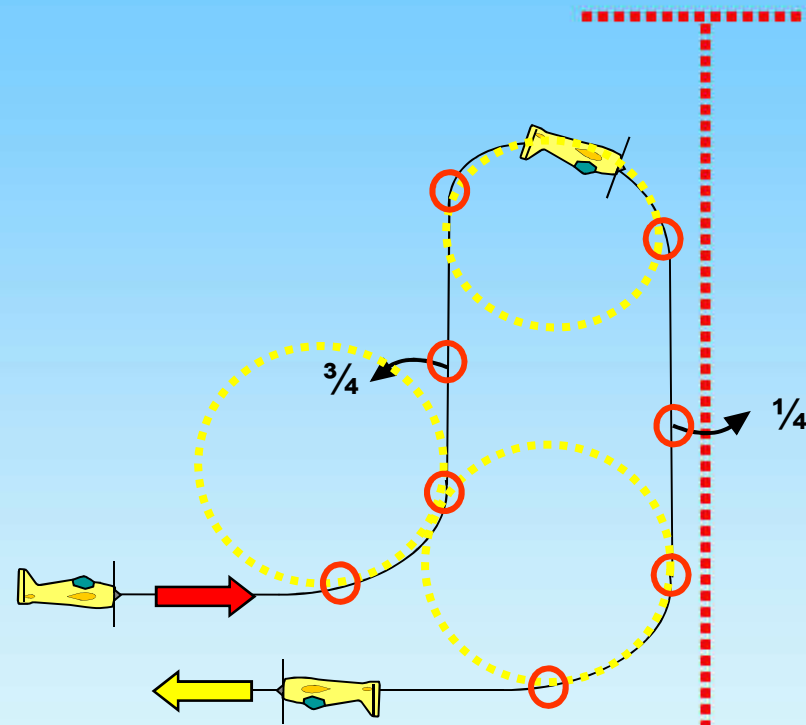


# P-23.10 Pull-Pull-Push Humpty-Bump, with half rolls. (Option: three quarter roll, quarter roll)

Option

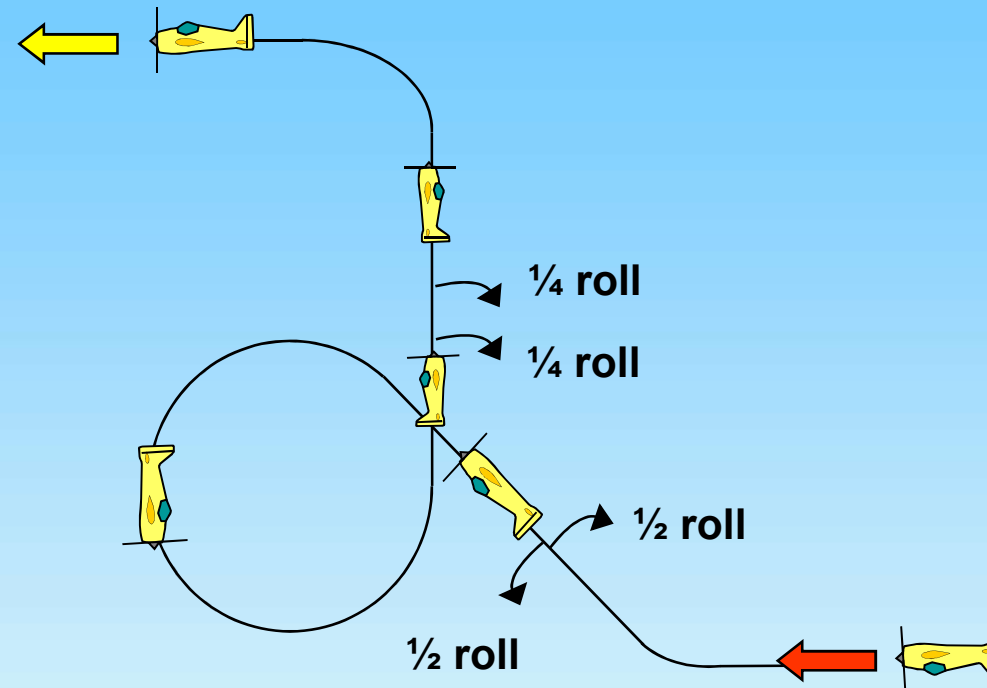
$\frac{3}{4}$  roll and  $\frac{1}{4}$  roll on middle of the line.

All radii are equal.





## P-23.11 Reverse Figure ET with two consecutive half rolls in opposite direction, two consecutive quarter rolls



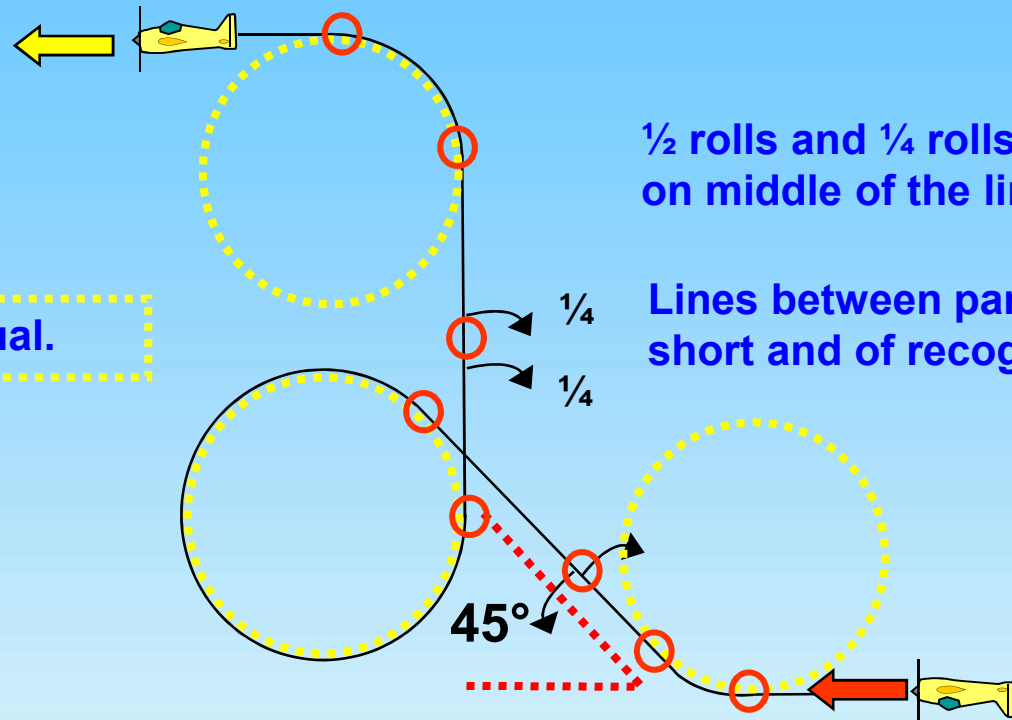
From inverted push through a one eighth loop into a forty five degree upline, perform consecutively two half rolls in opposite direction, pull through a seven eighths loop to a vertical upline, perform consecutively two quarter rolls, push through a quarter loop, exit upright.

Note: The vertical line must be in the center



# P-23.11 Reverse Figure ET with two consecutive half rolls in opposite direction, two consecutive quarter rolls

All radii are equal.



1/2 rolls and 1/4 rolls centered on middle of the line.

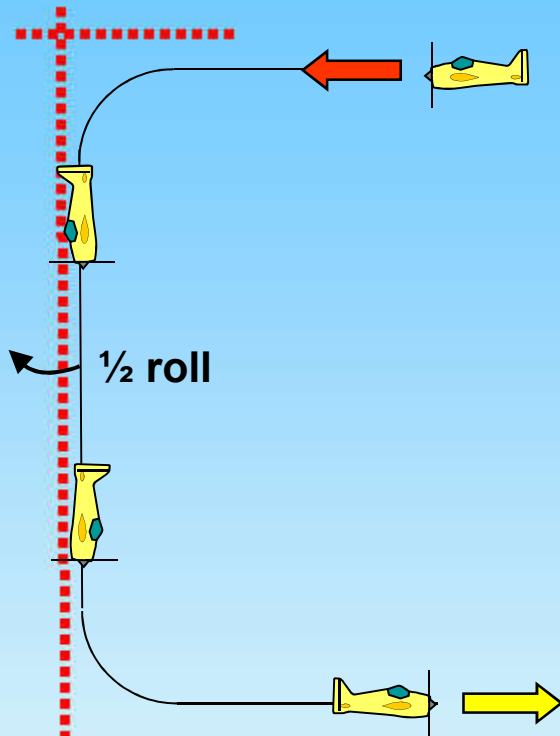
Lines between part rolls must be short and of recognisable length.

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





## P-23.12 Half Square Loop with half roll

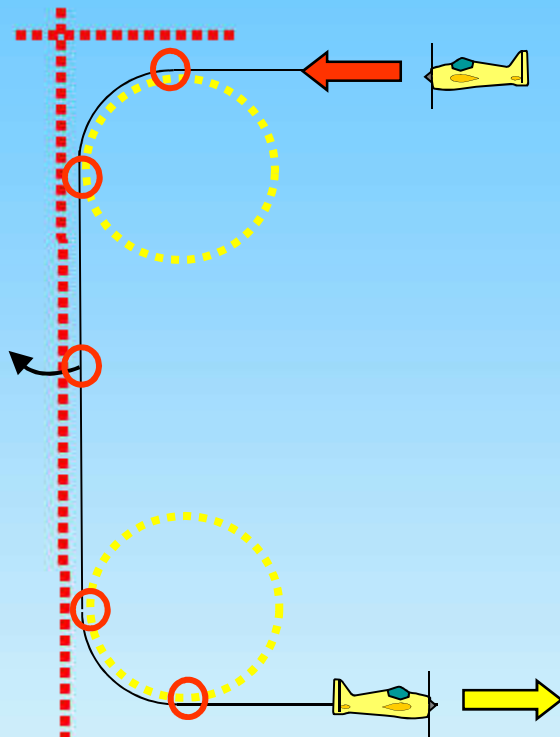


From upright push through a quarter loop into a vertical downline, perform a half roll, pull through a quarter loop, exit upright.





# P-23.12 Half Square Loop with half roll



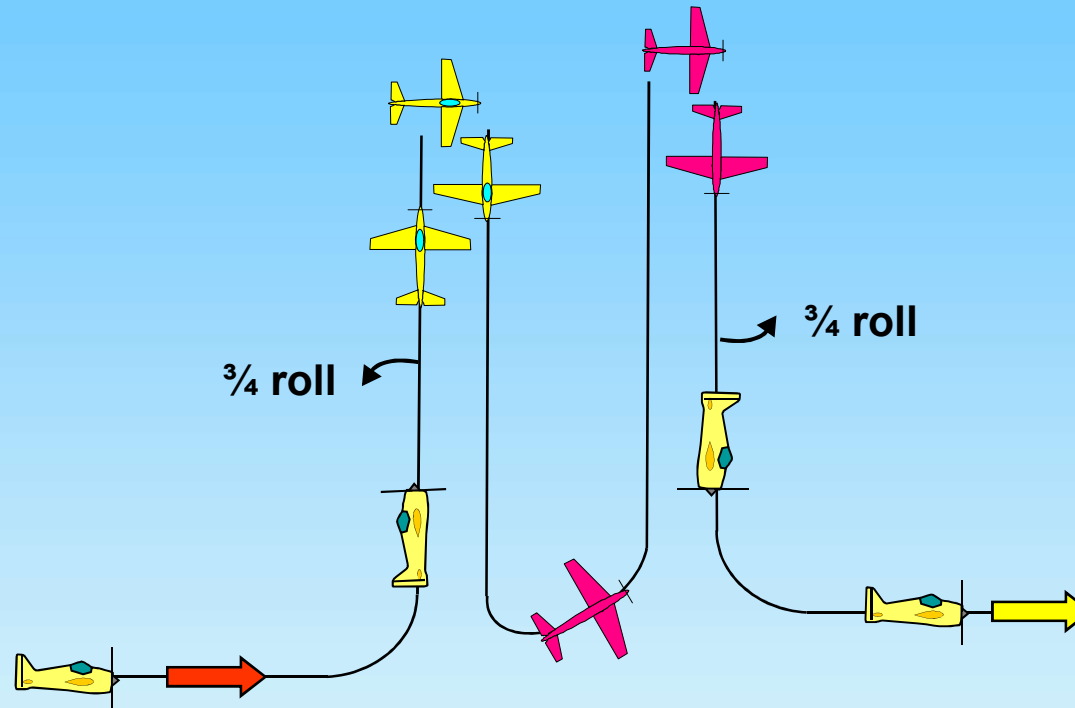
1/2 roll on middle of the line.

All radii are equal.





## P-23.13 Crossbox Figure M, with three quarter rolls



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







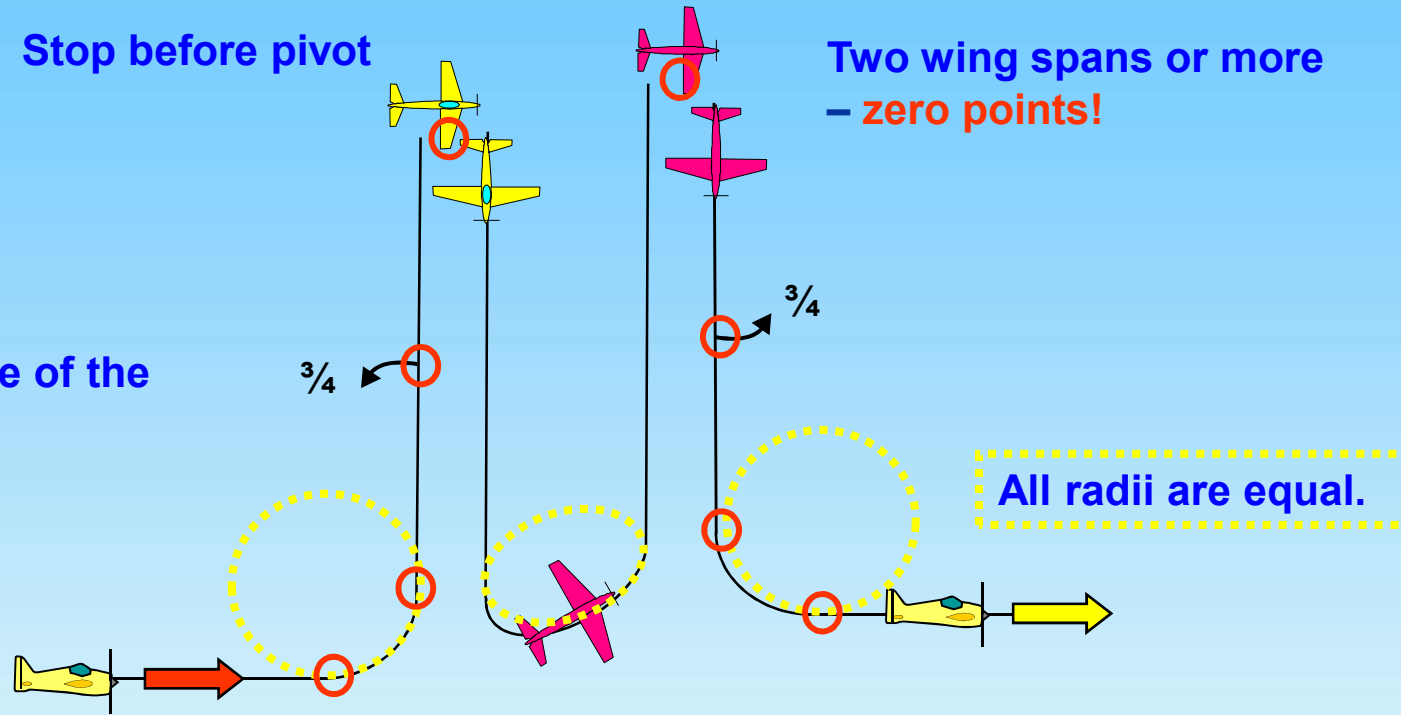
# P-23.13 Crossbox Figure M, with three quarter rolls

Pivot on CG

Stop before pivot

Two wing spans or more  
- zero points!

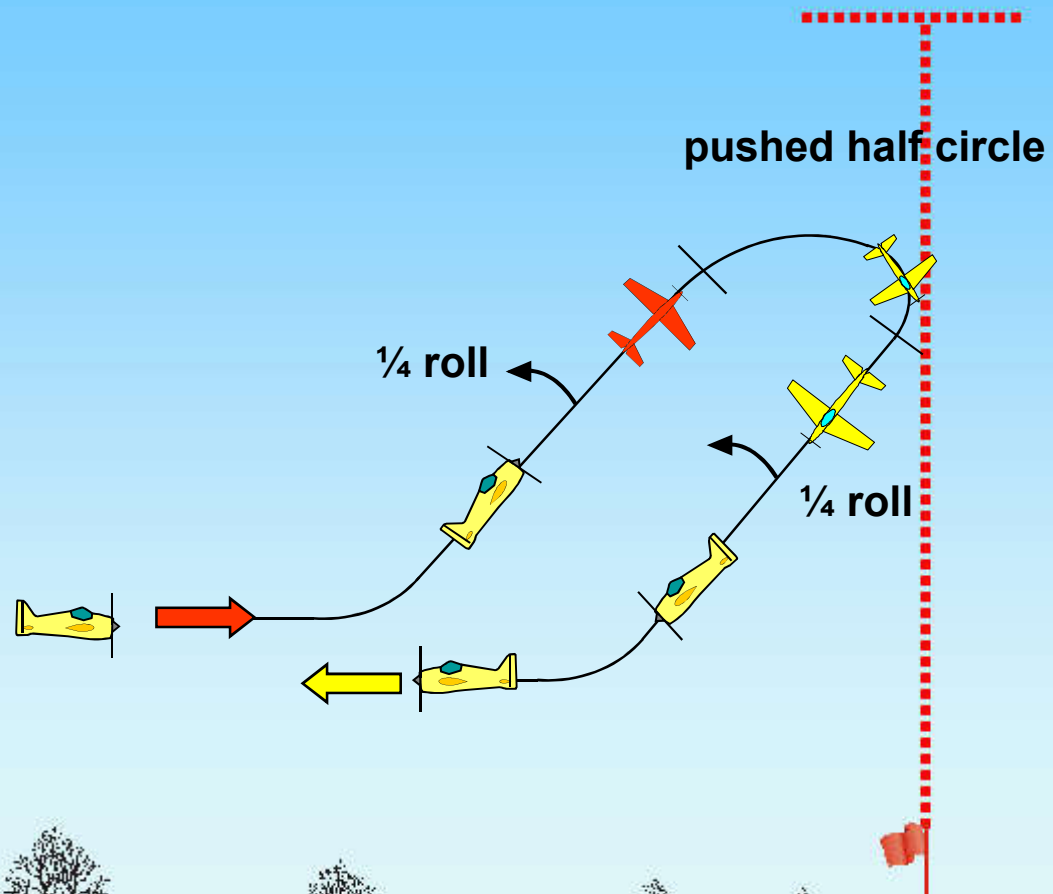
$\frac{3}{4}$  rolls on middle of the lines.







## P-23.14 Fighter Turn with quarter rolls



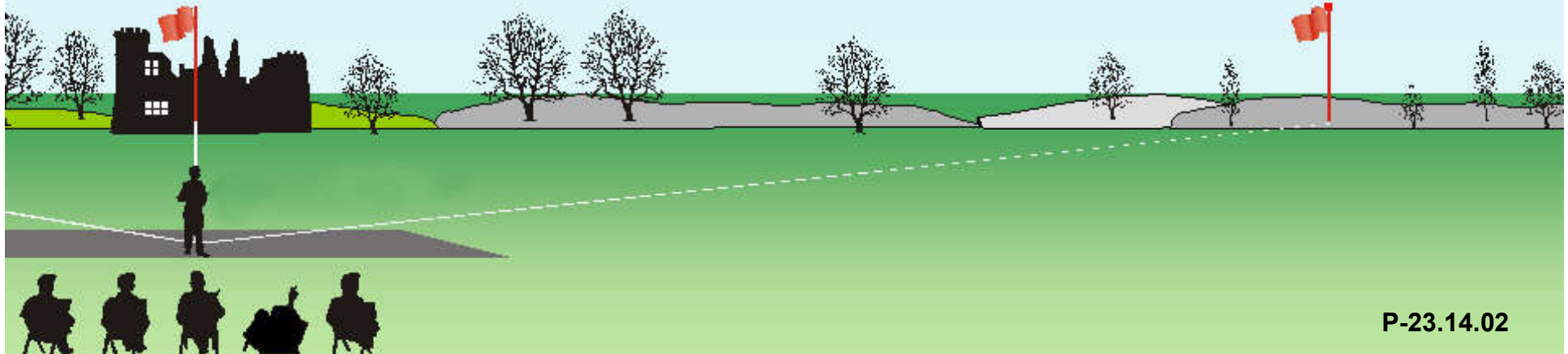
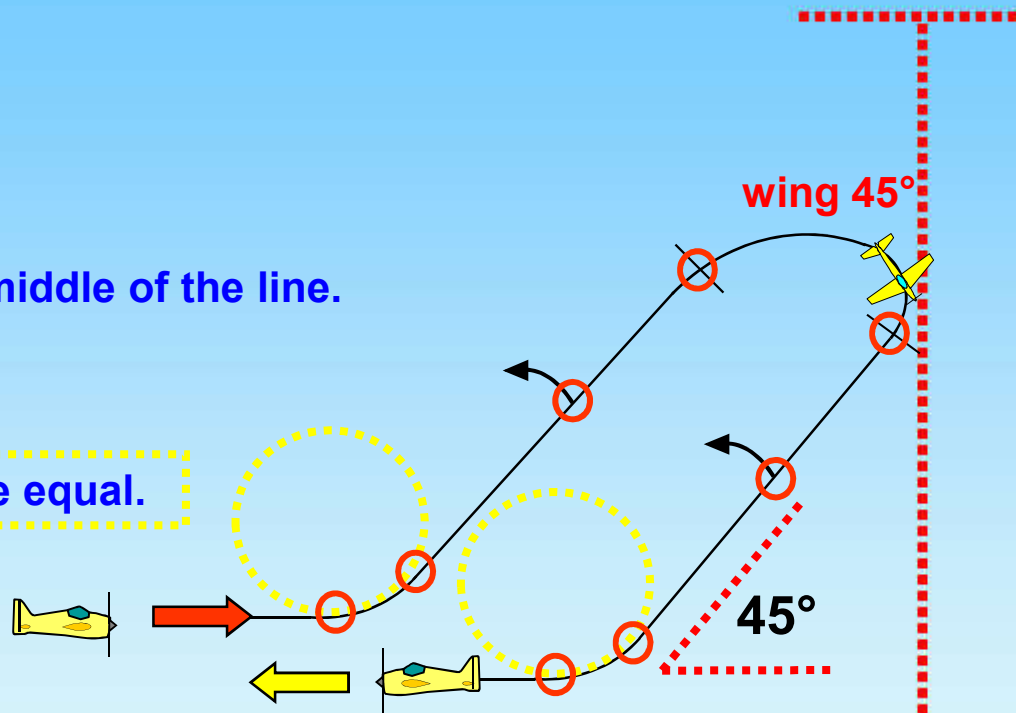
From upright pull through a one eighth loop into a forty five degree upline, perform a quarter roll, push through a half knife-edge circle into a forty five degree downline, perform a quarter roll, pull through a one eighth loop, exit upright.



# P-23.14 Fighter Turn with quarter rolls

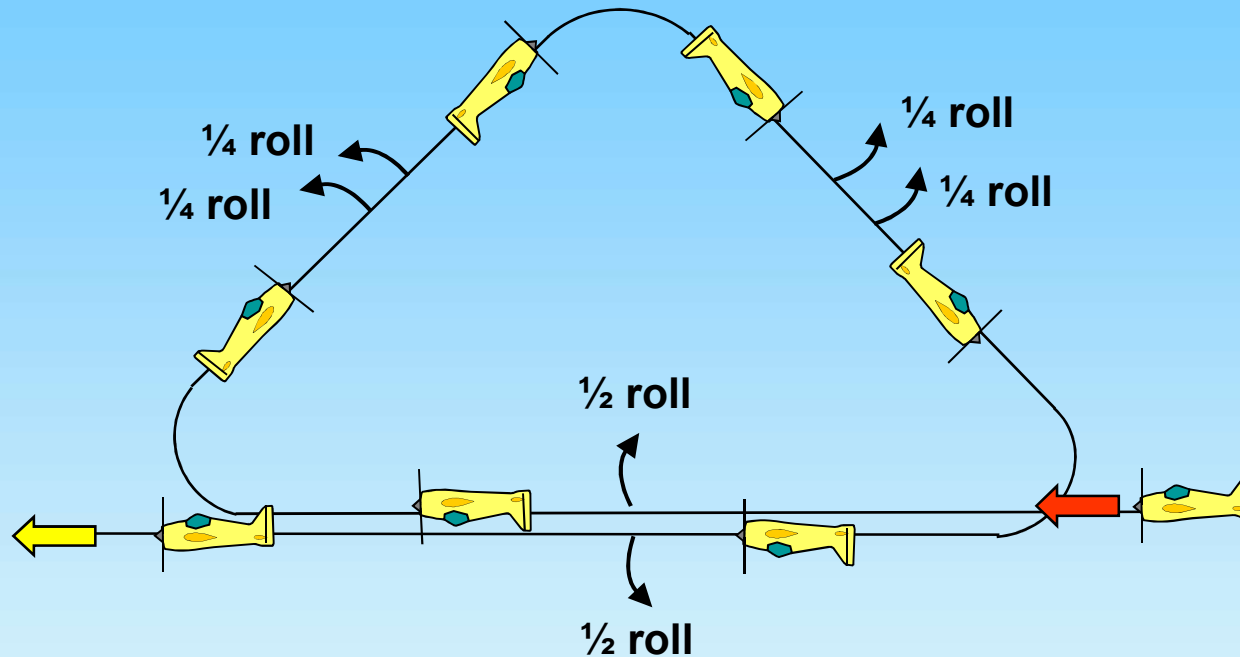
$\frac{1}{4}$  rolls on middle of the line.

All radii are equal.





## P-23.15 Triangle with half roll, two consecutive quarter rolls, two consecutive quarter rolls, half roll



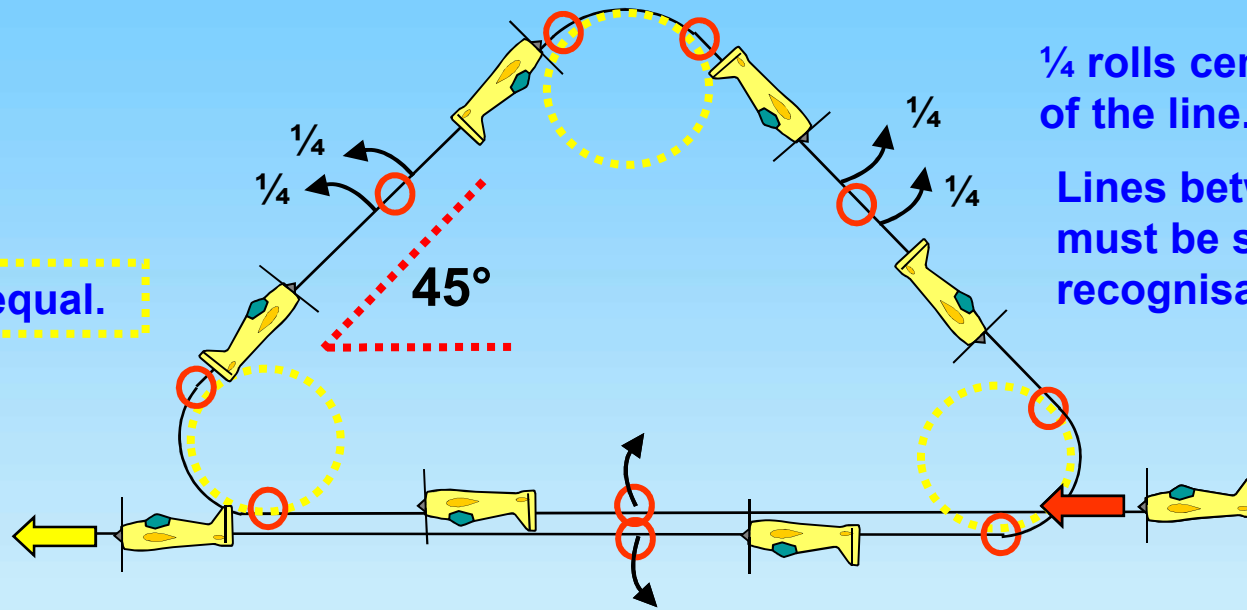
From upright perform a half roll in the centre, push through a three eighths loop into a forty five degree upline, perform consecutively two quarter rolls, pull through quarter loop into a forty five degree downline, perform consecutively two quarter rolls, push through a three eighths loop, perform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





# P-23.15 Triangle with half roll, two consecutive quarter rolls, two consecutive quarter rolls, half roll

All radii are equal.



$\frac{1}{2}$  rolls in the center.

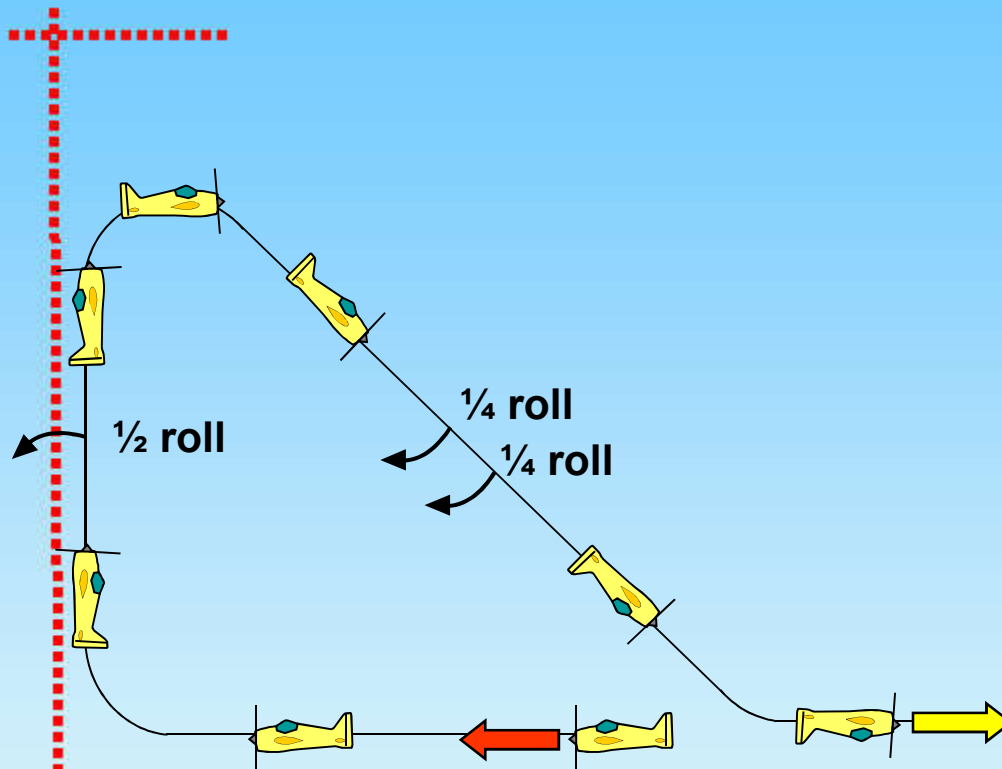
$\frac{1}{4}$  rolls centered on middle of the line.

Lines between part rolls must be short and of recognisable length.





## P-23.16 Shark Fin with half roll, two consecutive quarter rolls

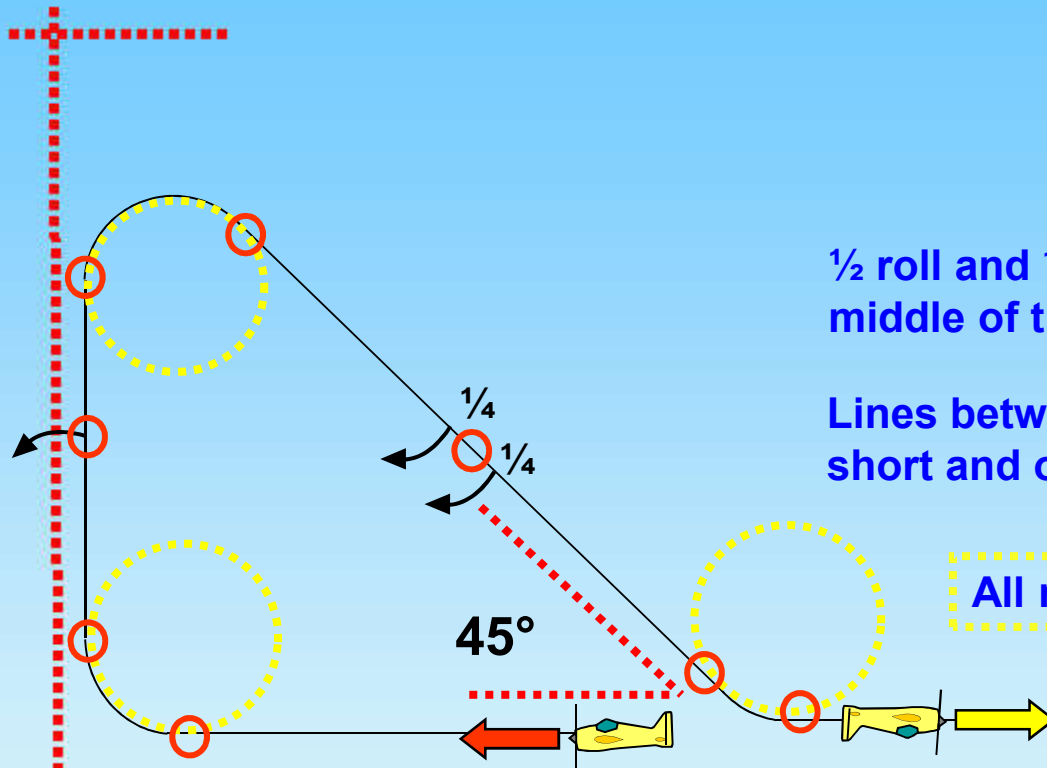


From upright pull through a quarter loop into a vertical upline, perform a half roll, push through a three eighths loop into a forty five degree downline, perform consecutively two quarter rolls, push through a one eighth loop, exit inverted.





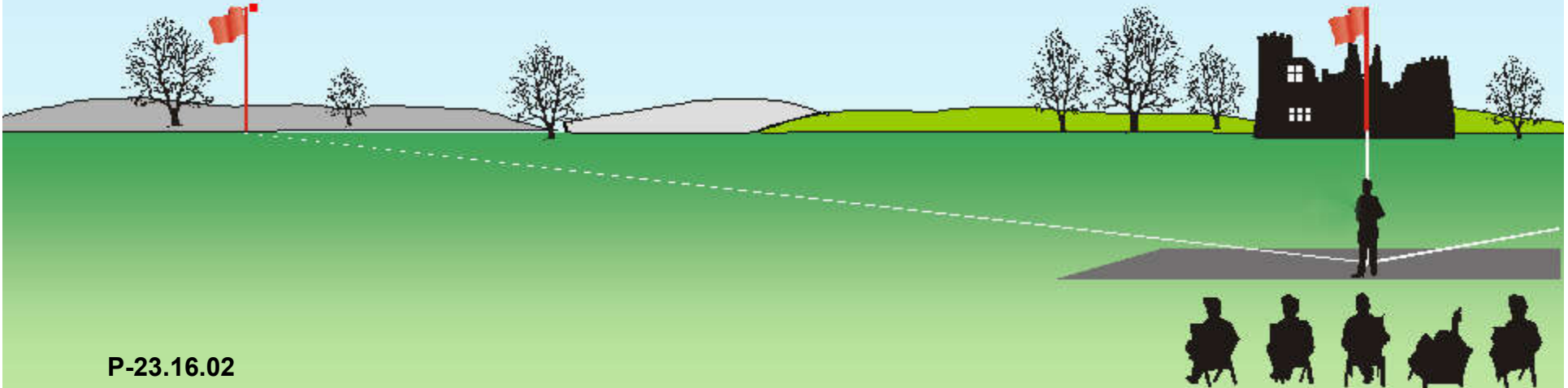
# P-23.16 Shark Fin with half roll, two consecutive quarter rolls



$\frac{1}{2}$  roll and  $\frac{1}{4}$  rolls centered on middle of the line.

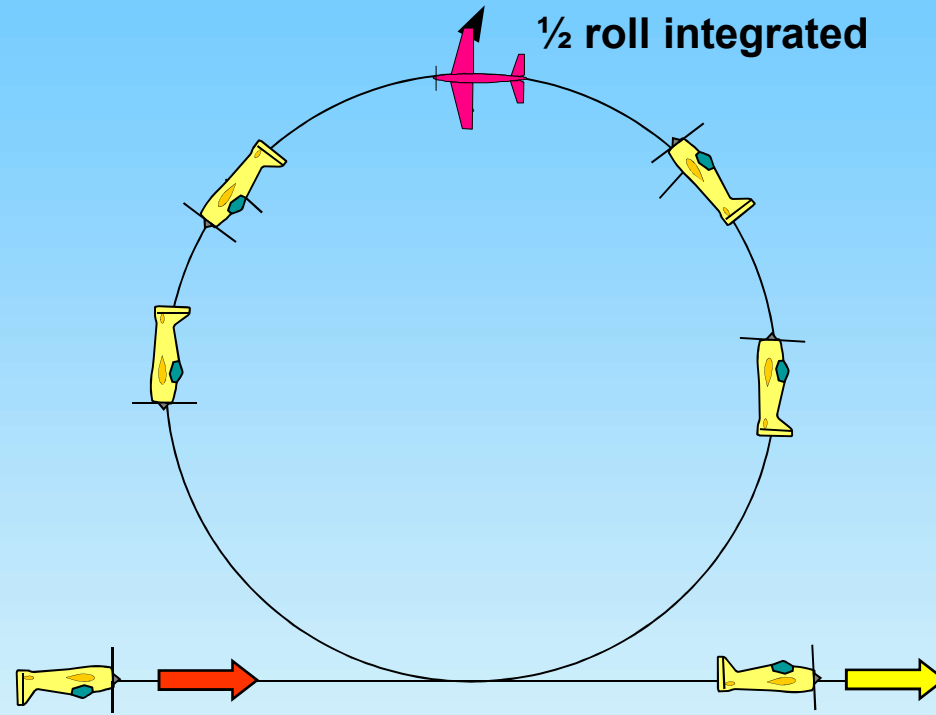
Lines between part rolls must be short and of recognisable length.

All radii are equal.





## P-23.17 Loop with half roll integrated



From inverted push through a loop while integrating a half roll over the top ninety degrees, exit upright.

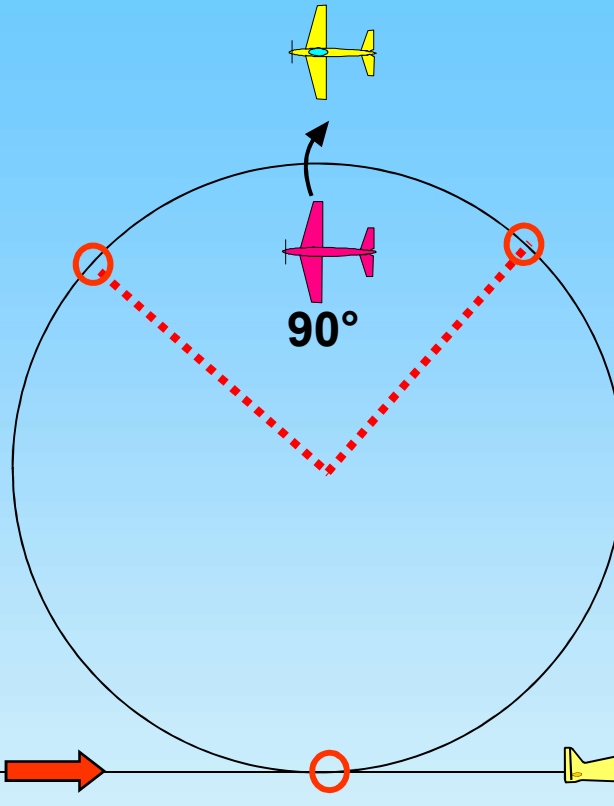






## P-23.17 Loop with half roll integrated

Loop must be round.



The  $\frac{1}{2}$  roll must be integrated on circular flightpath of the top  $90^\circ$  of the loop.

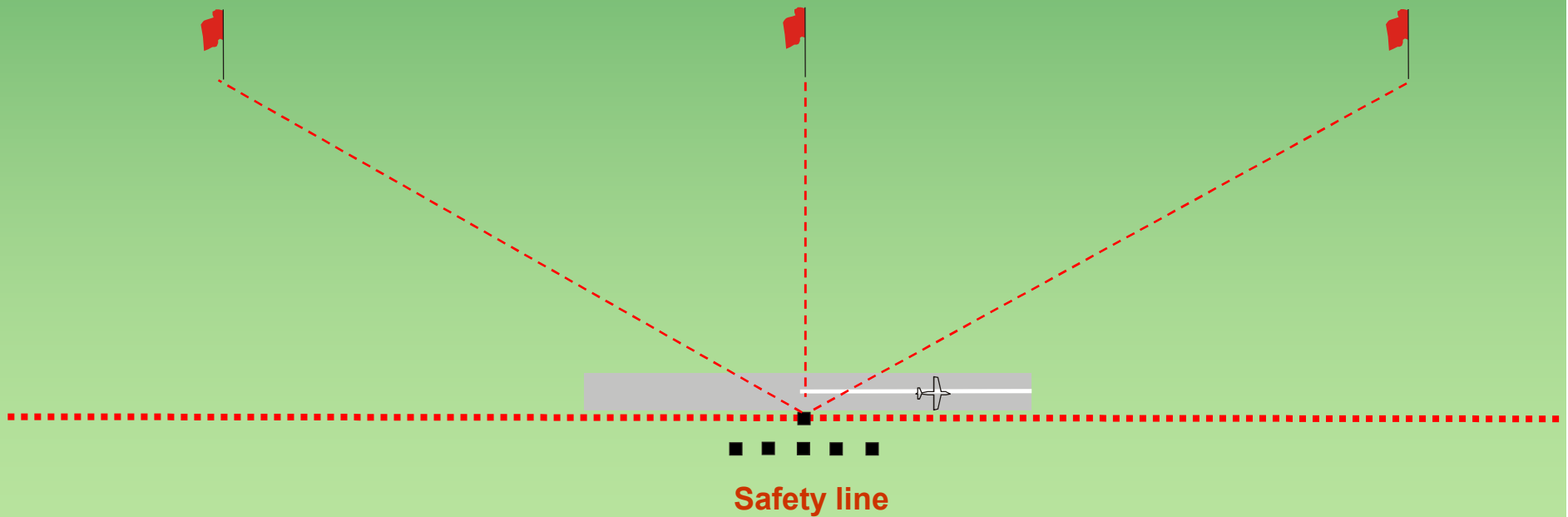






## Landing procedure ( not judged, not scored )

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



Forget **WHO** is flying

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

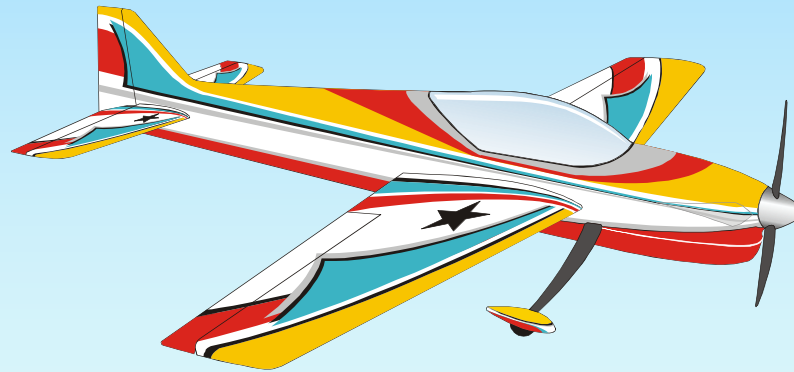
Forget **WHAT** is flying

(2-stroke, 4-stroke, electric)

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

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

Bob Skinner



**Thank you!**

© Peter Uhlig, March 2020