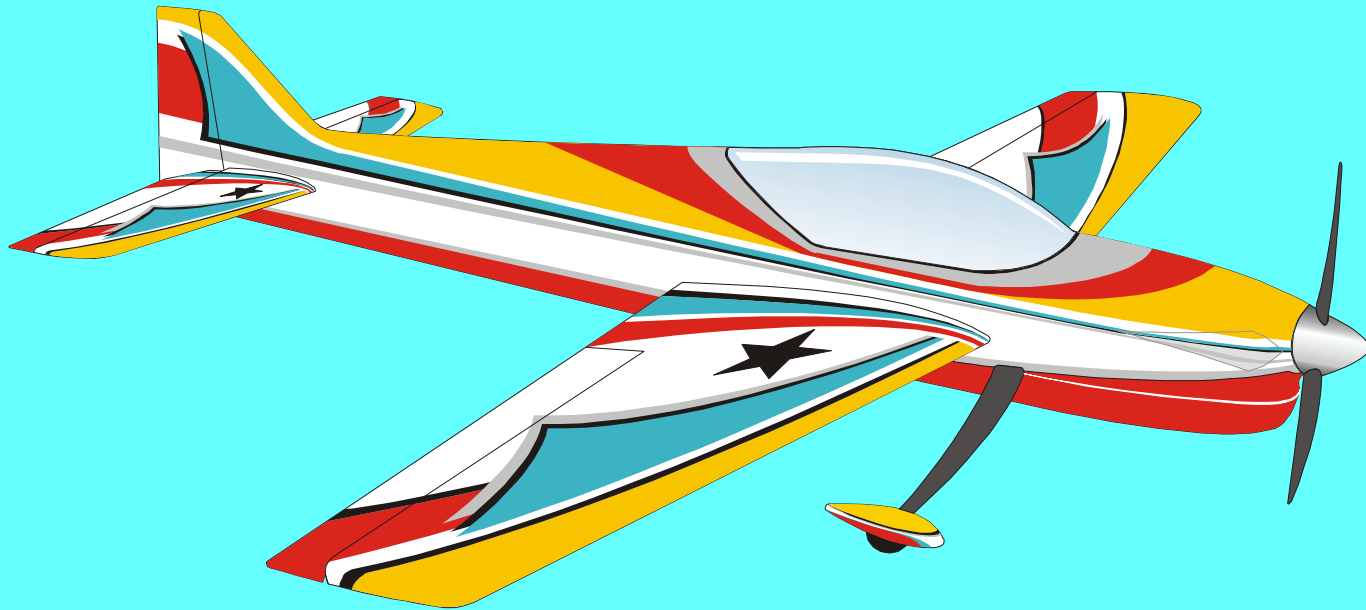


# Flying and Judging F3A

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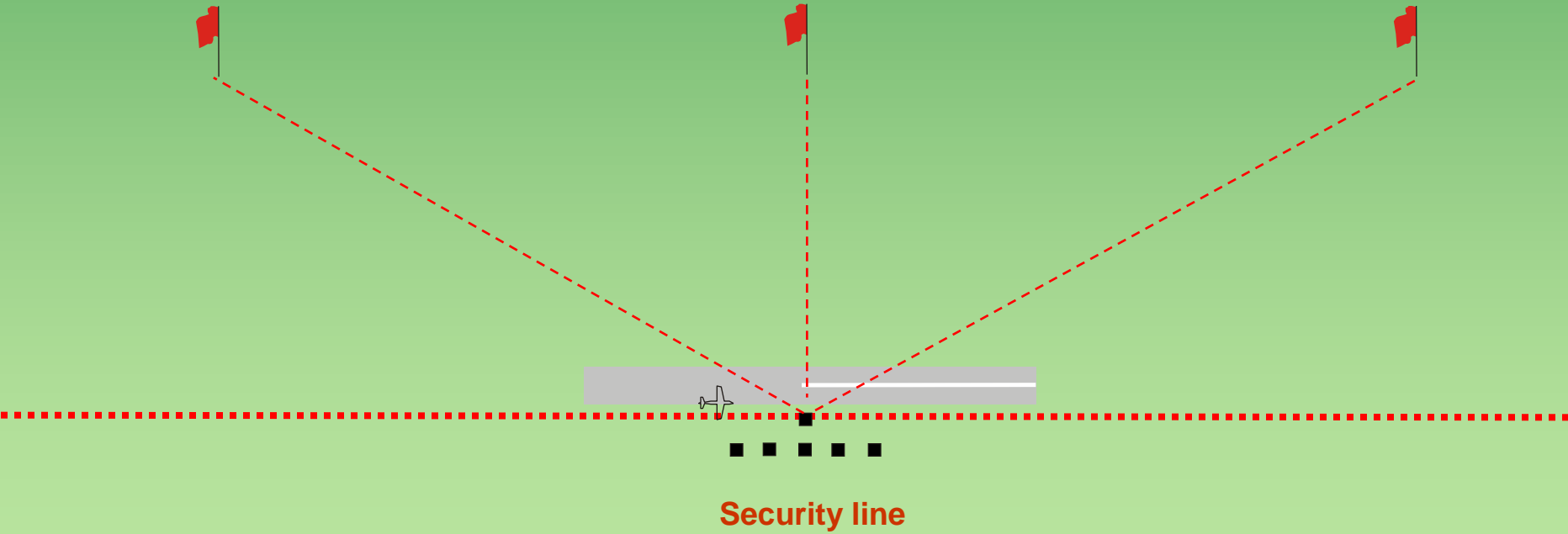
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**SCHEMATIC MANOEUVRE ILLUSTRATIONS**  
**SCHEDULE P-15.**



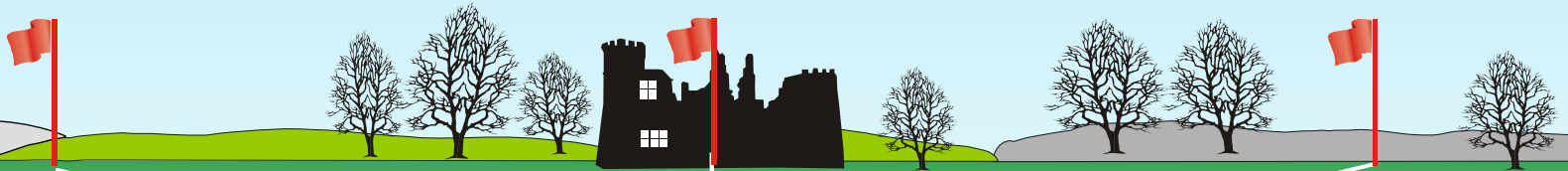
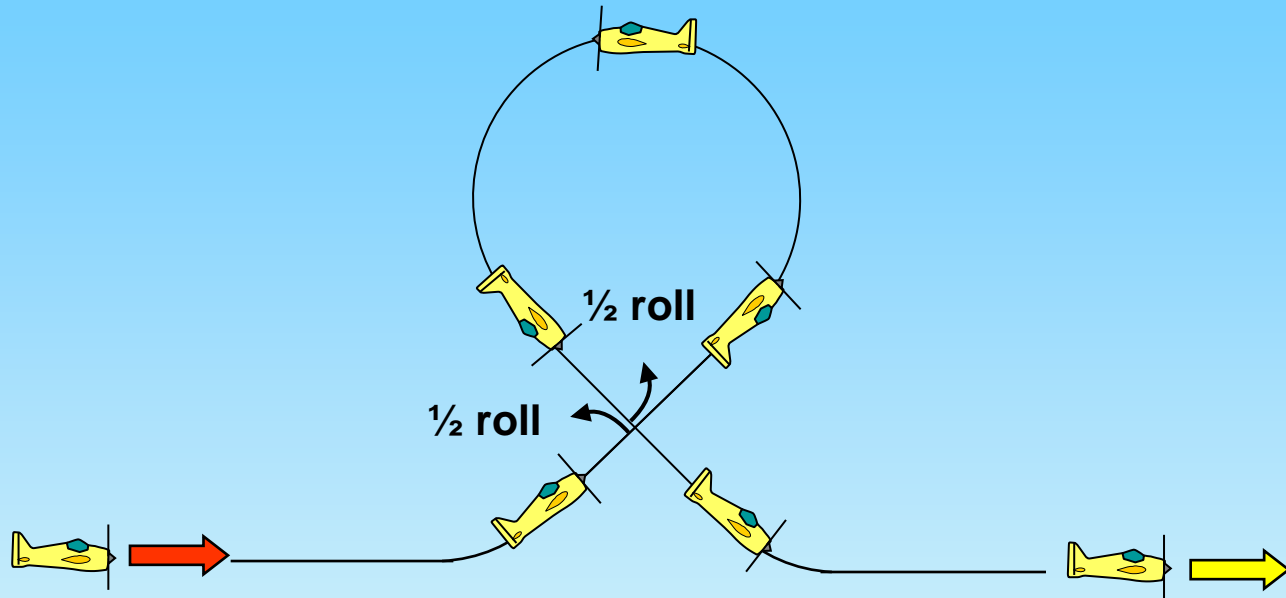
# Take-off procedure ( not judged, not scored )

← wind



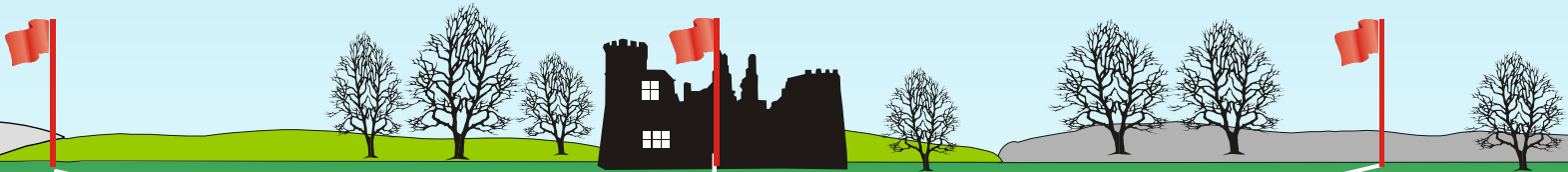
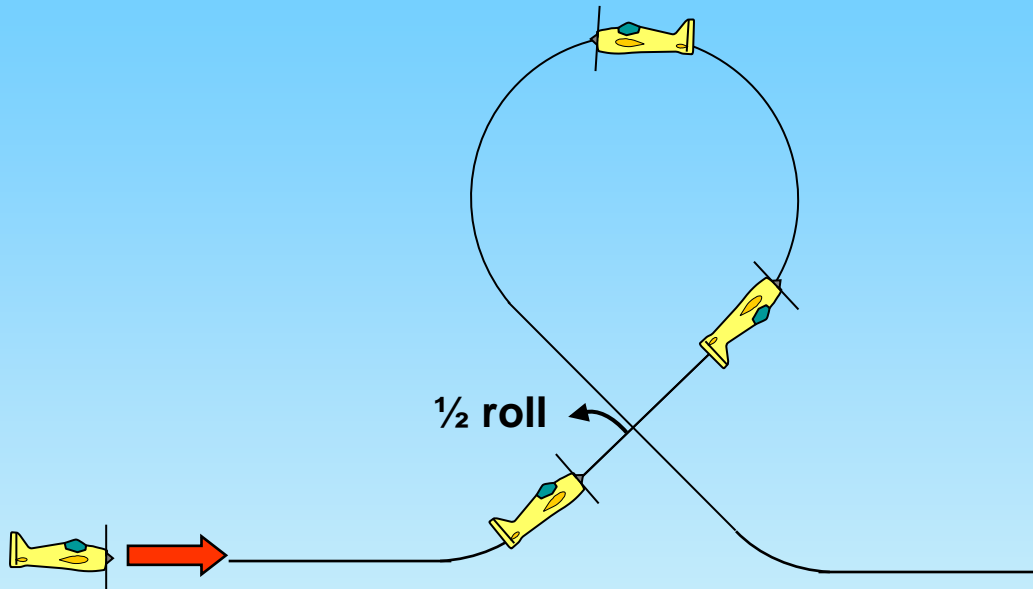


# P-15.01: Golf Ball with two $\frac{1}{2}$ rolls





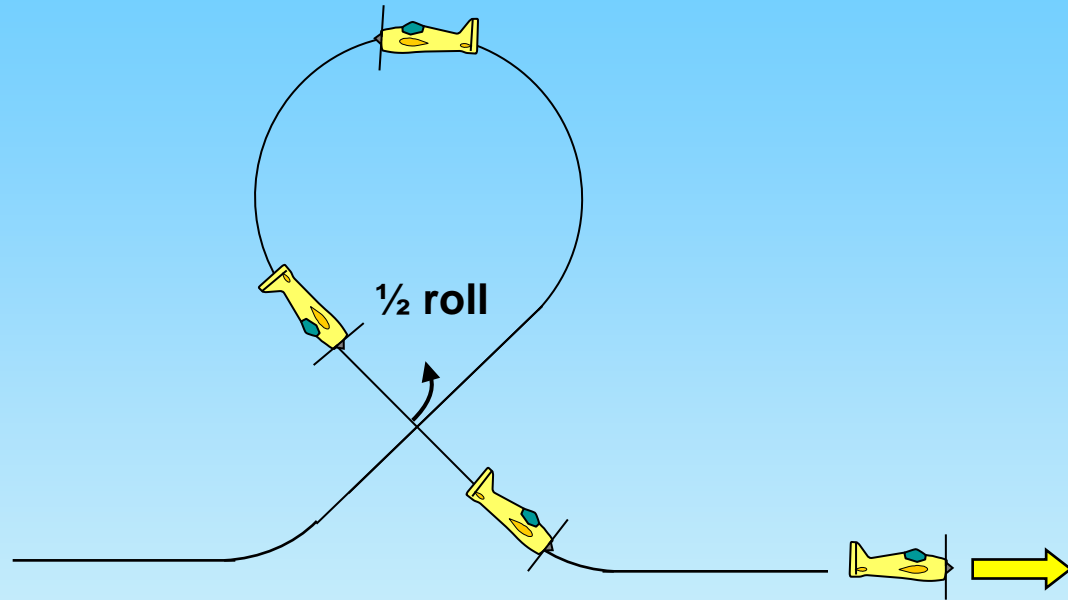
# P-15.01: Golf Ball with two $\frac{1}{2}$ rolls





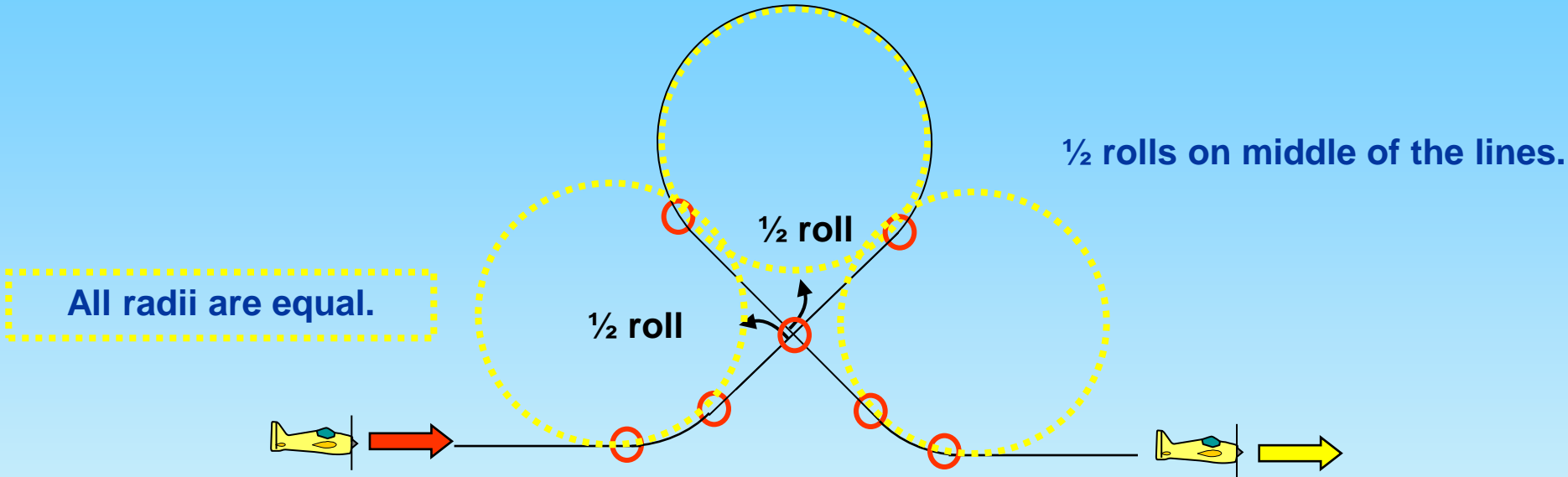


# P-15.01: Golf Ball with two $\frac{1}{2}$ rolls

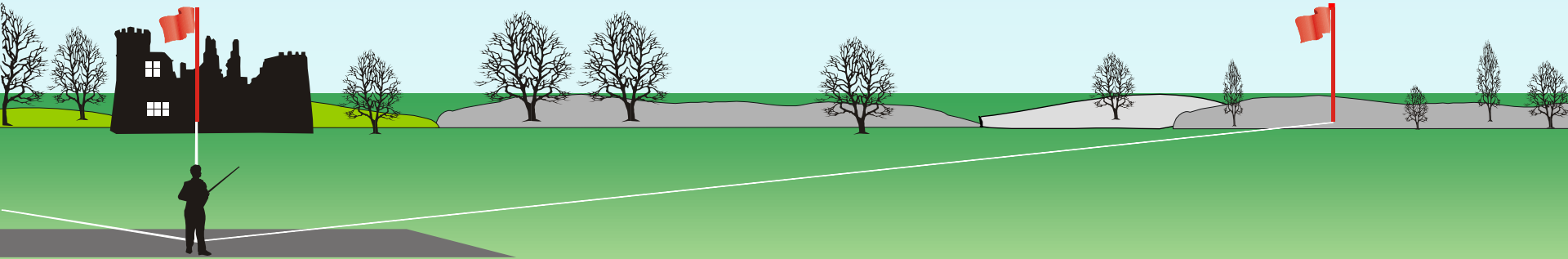
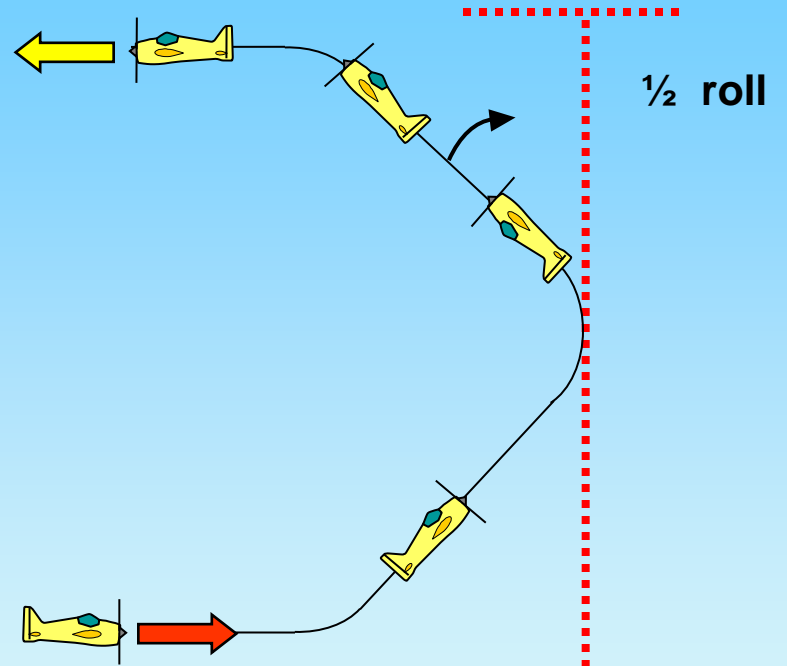




# P-15.01: Golf Ball with two $\frac{1}{2}$ rolls



# P-15.02: Half Square Loop on Corner with $\frac{1}{2}$ roll

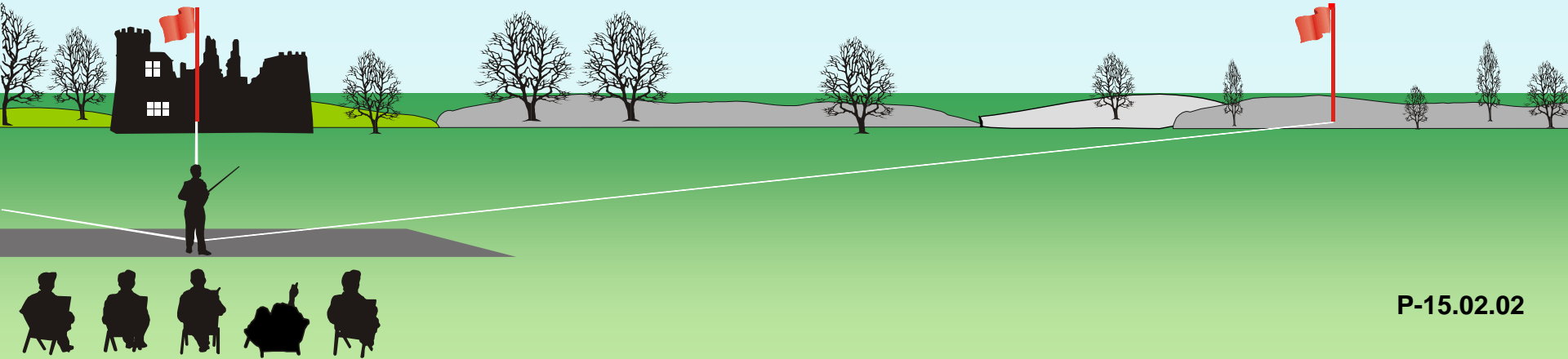
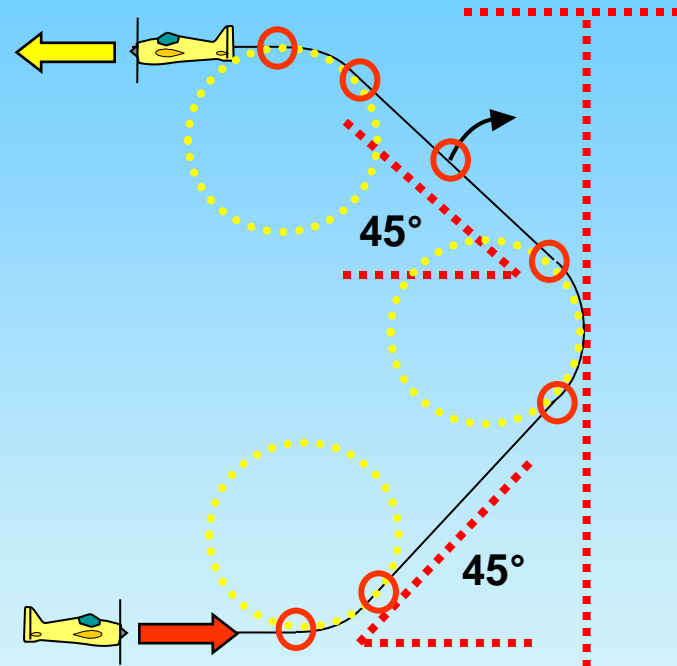


# P-15.02: Half Square Loop on Corner with $\frac{1}{2}$ roll



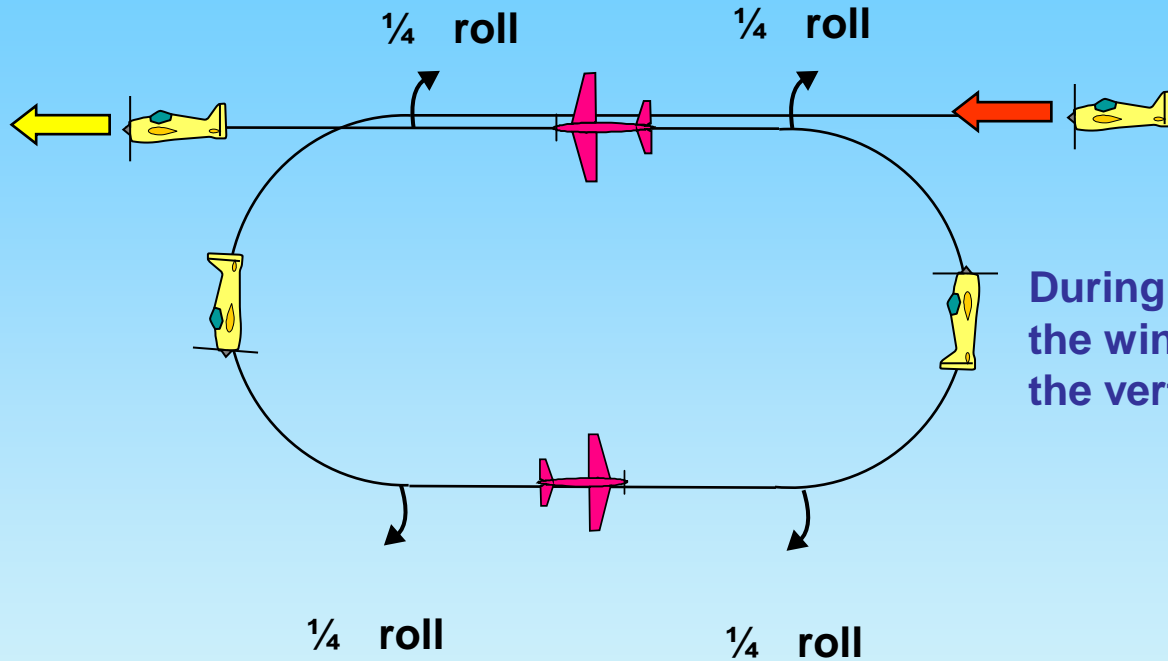
$\frac{1}{2}$  roll on middle of the line.

All radii are equal.

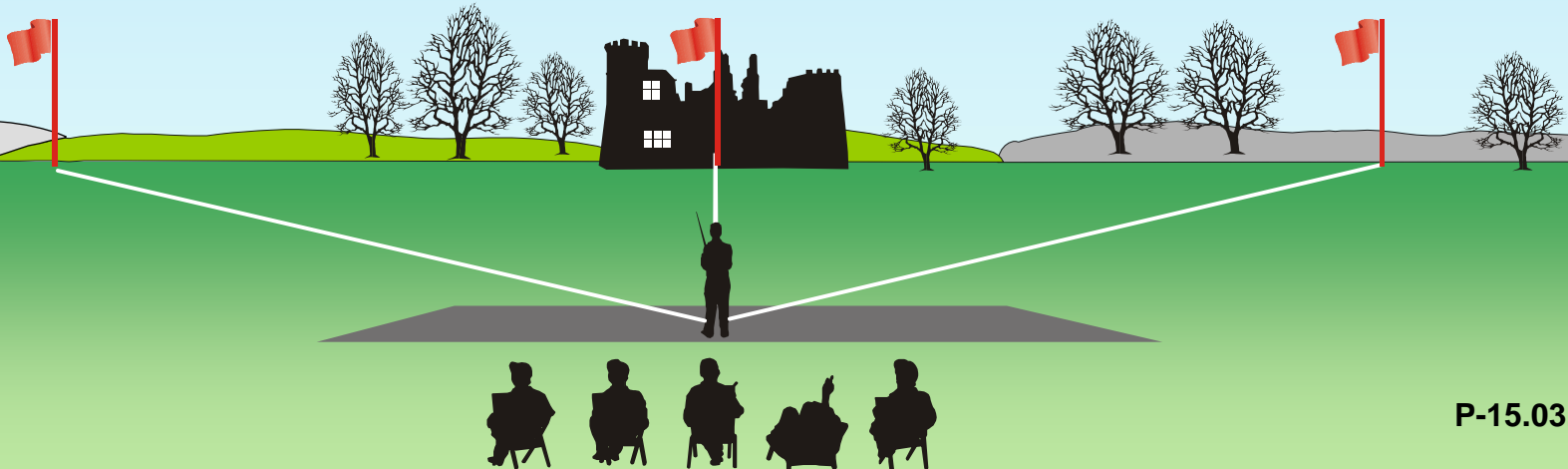




# P-15.03: Double Immelmann with two knife edge flights



During the knife edge the wing must be in the vertical plane.

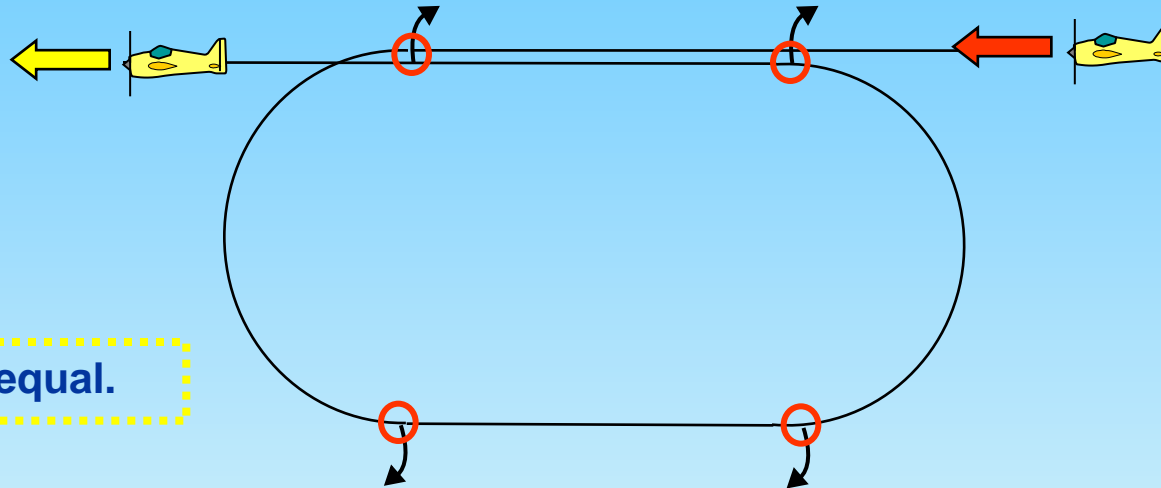




# P-15.03: Double Immelmann with two knife edge flights

The half loops must follow immediately after the  $\frac{1}{4}$  rolls .

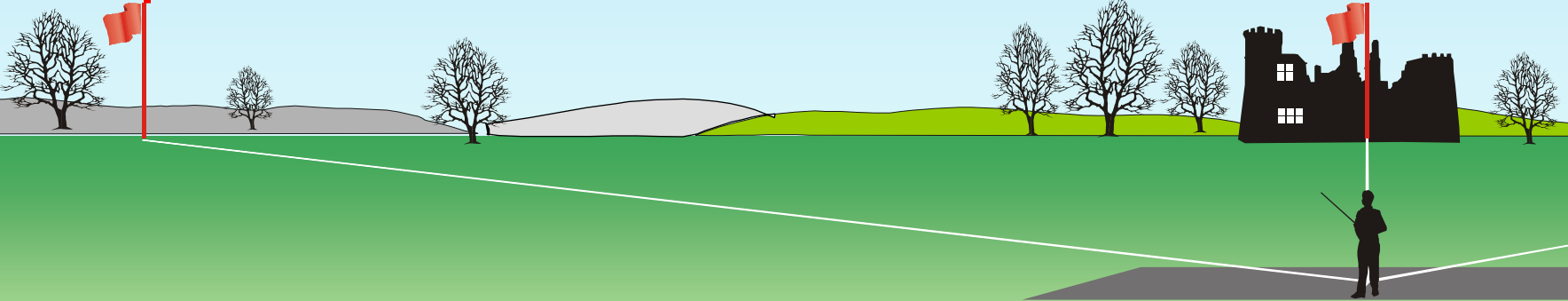
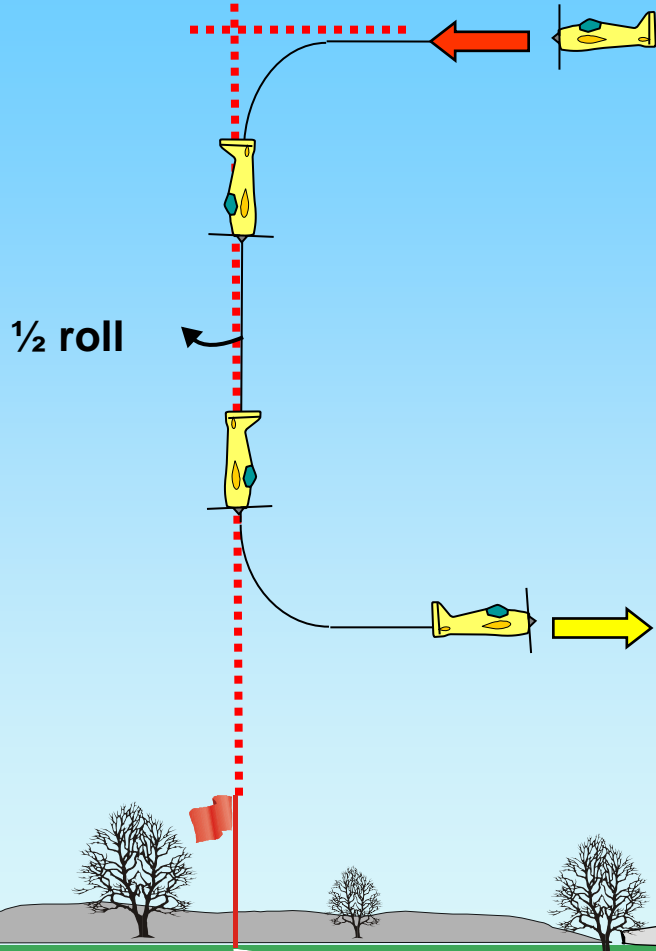
There must be no line between the half loops and the  $\frac{1}{4}$  rolls.



All radii are equal.

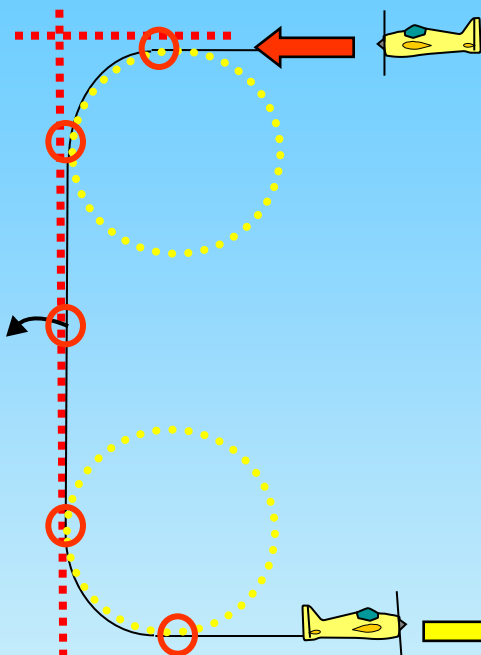


# P-15.04: Half Square loop with ½ roll





# P-15.04: Half Square loop with 1/2 roll



1/2 roll on middle of the line.

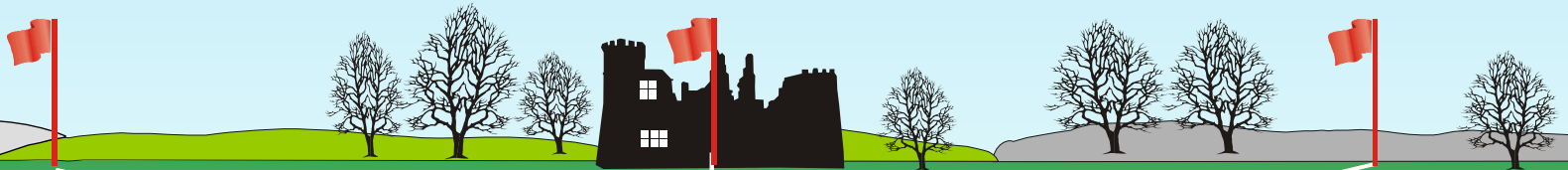
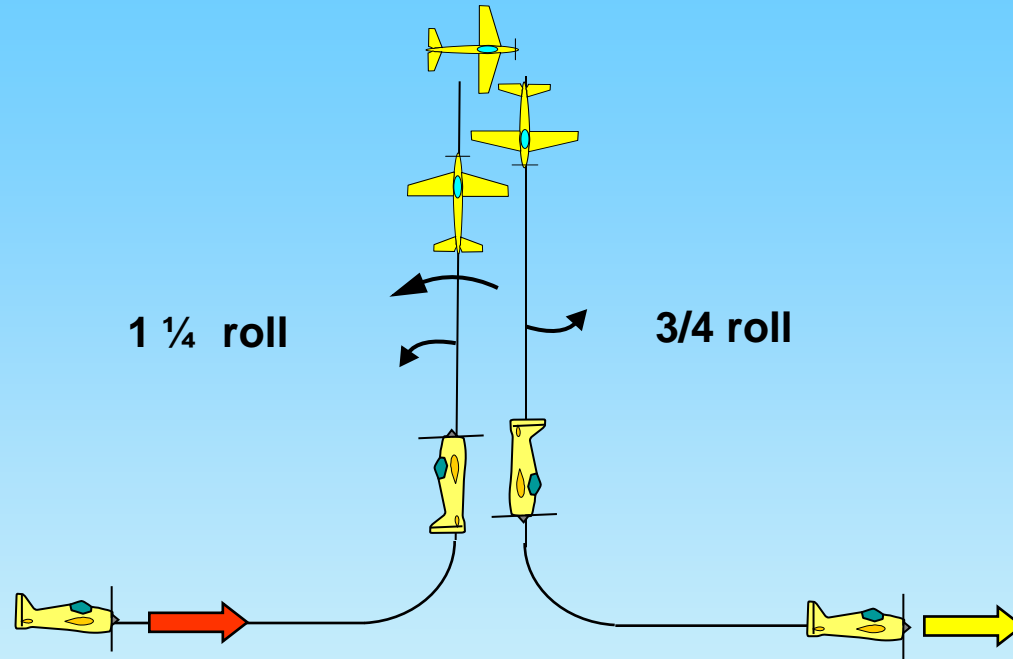
All radii are equal.







# P-15.05: Stall Turn with 1 ¼ roll up, ¾ roll down





# P-15.05: Stall Turn with 1 ¼ roll up, ¾ roll down

Stop before pivot

Pivot on CG

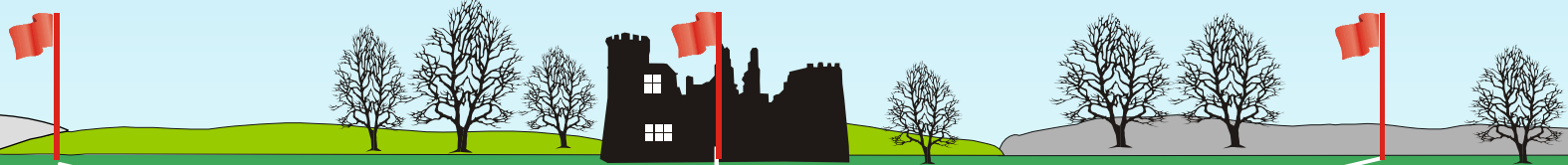
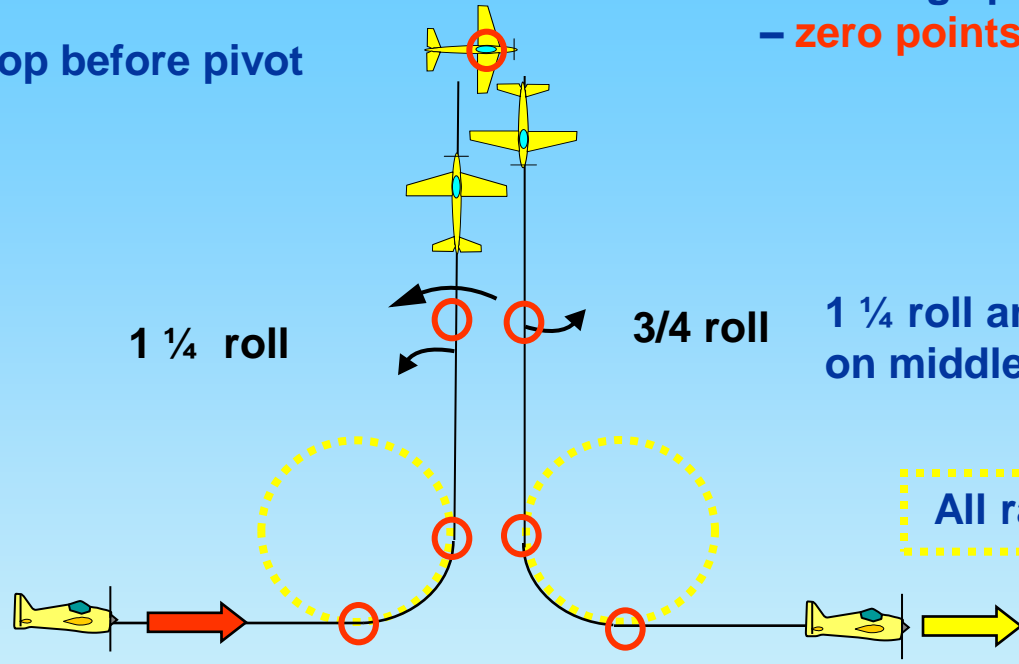
Two wing spans or more  
– zero points!

1 ¼ roll

¾ roll

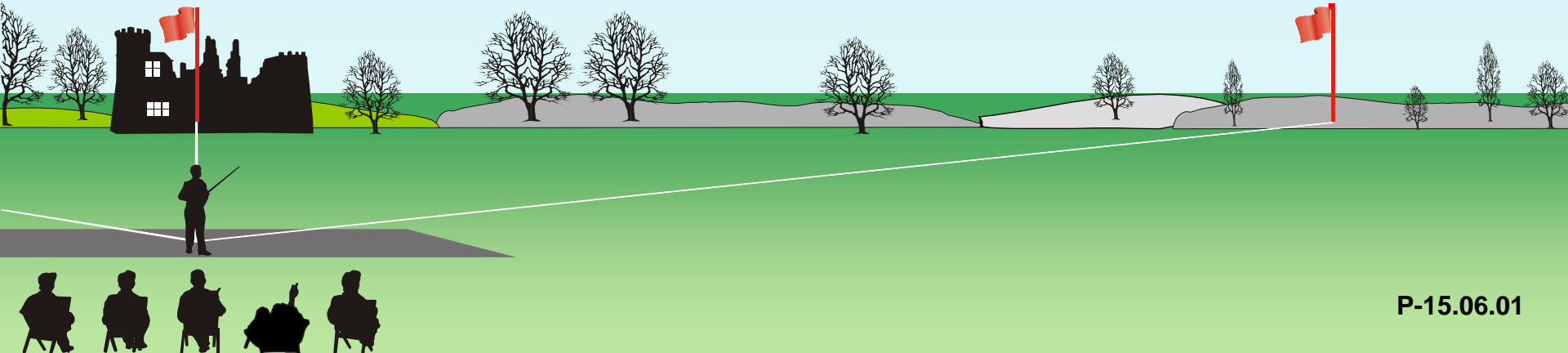
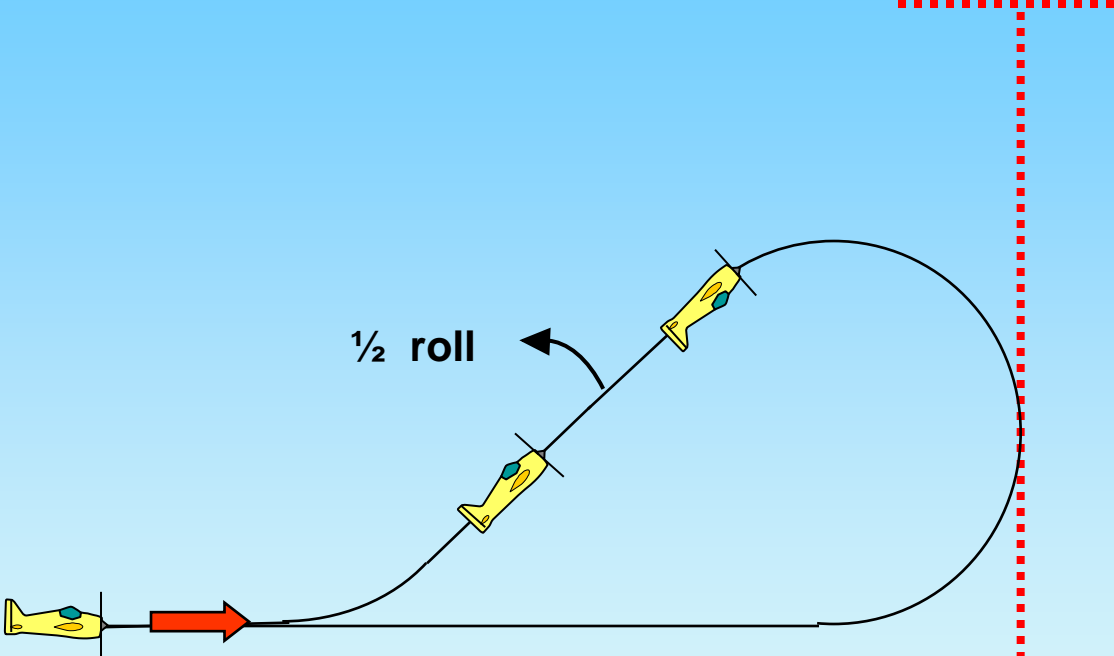
1 ¼ roll and ¾ roll centered  
on middle of the lines.

All radii are equal.



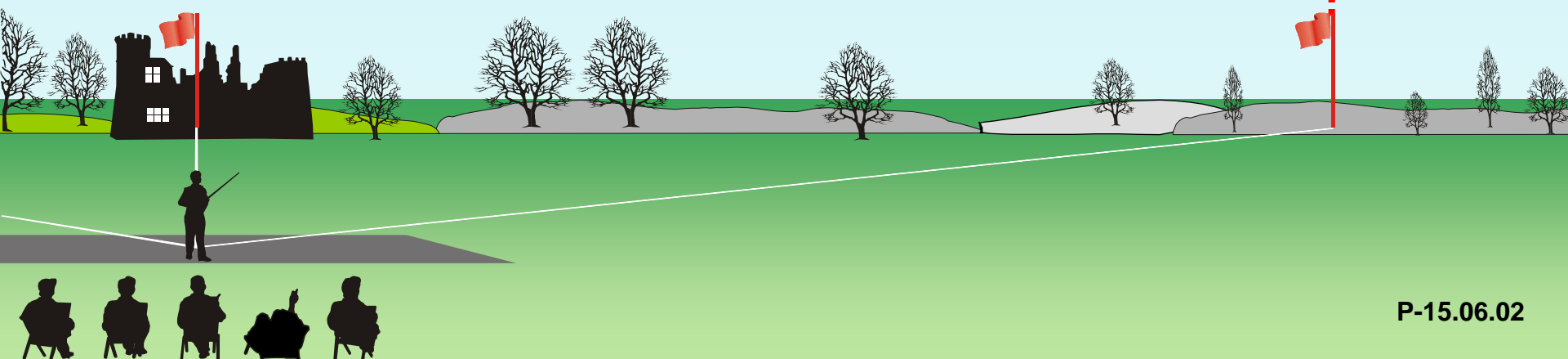
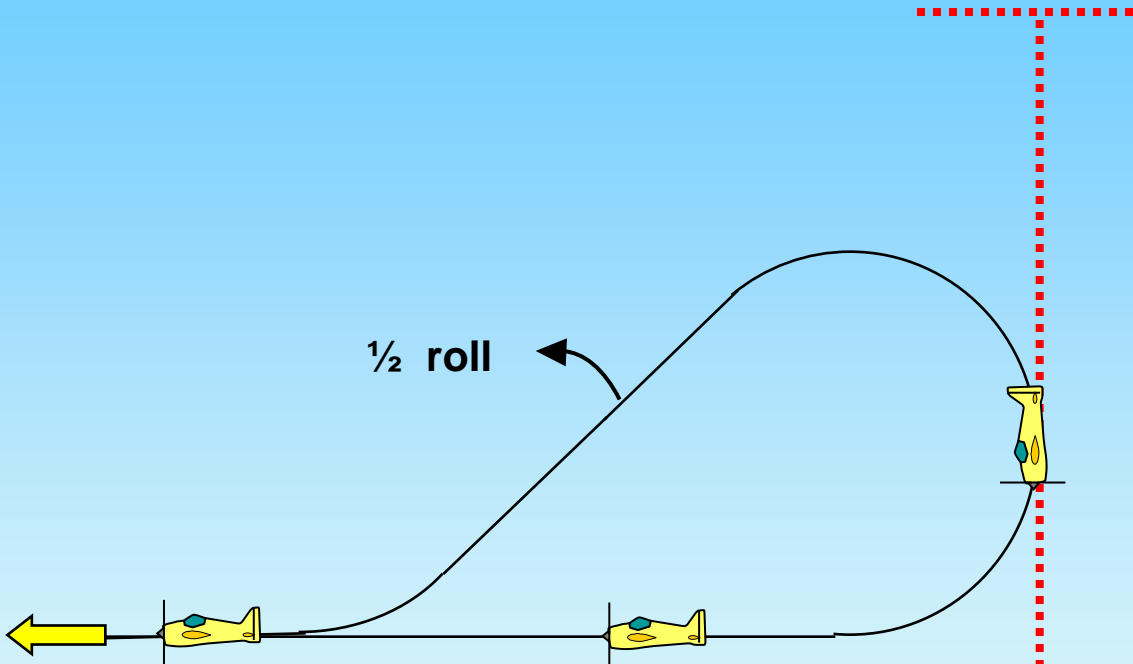


# P-15.06: Half Reverse Cuban 8 with 1/2 roll





# P-15.06: Half Reverse Cuban 8 with 1/2 roll

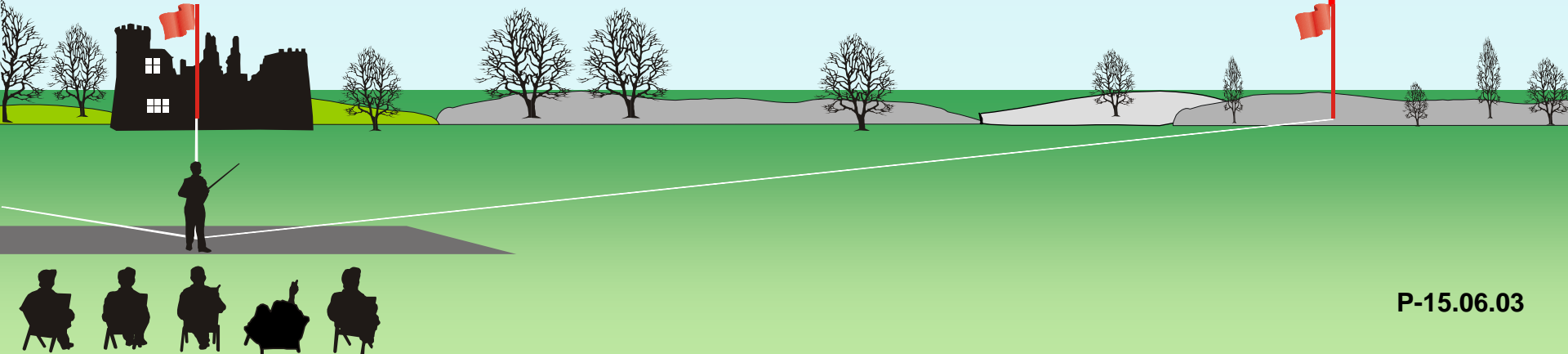
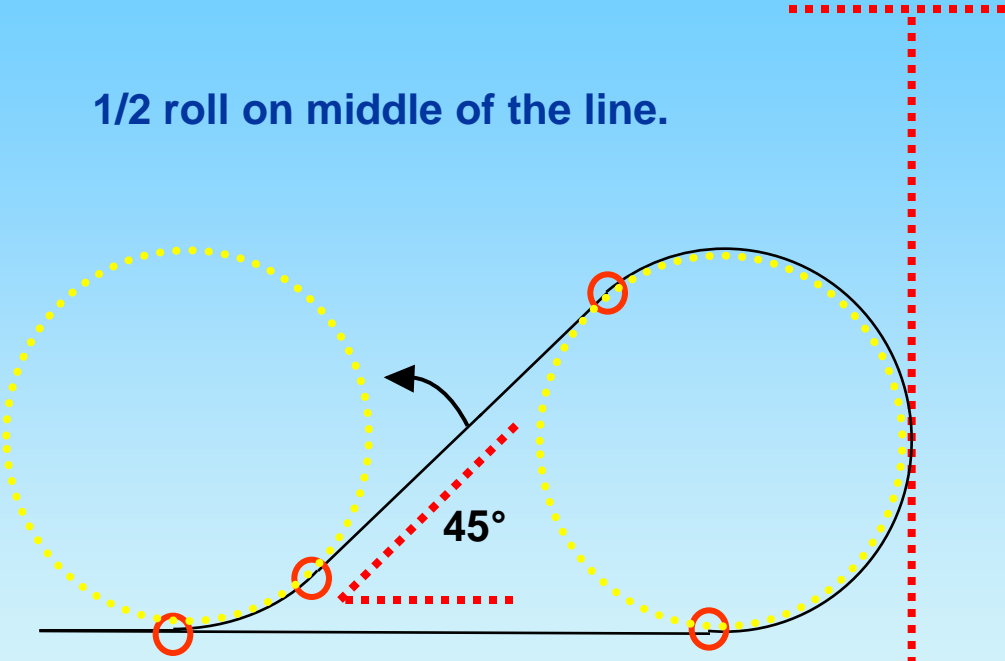




# P-15.06: Half Reverse Cuban 8 with 1/2 roll

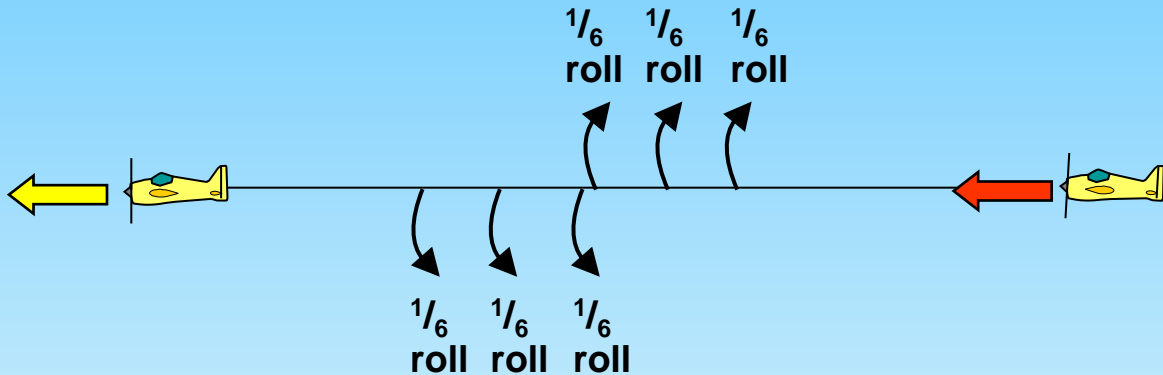
1/2 roll on middle of the line.

All radii are equal.





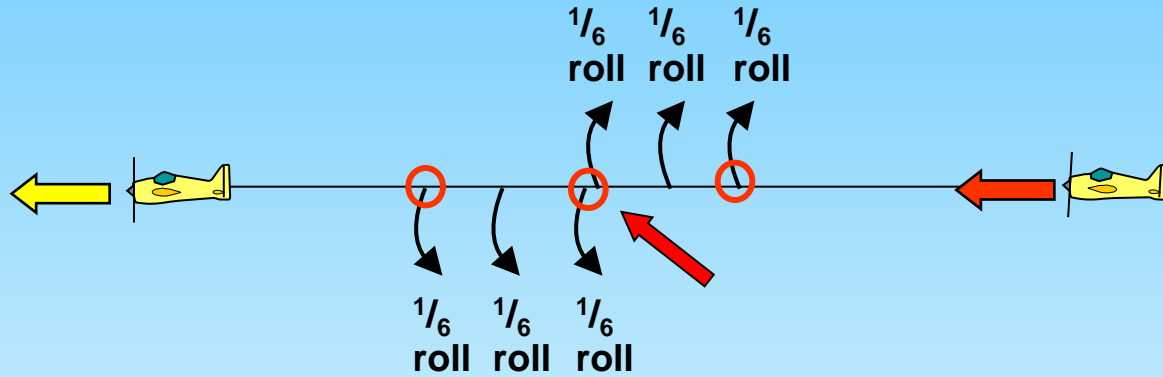
# P-15.07: Roll Combination with consecutive three $\frac{1}{6}$ rolls, three $\frac{1}{6}$ rolls in opposite direction





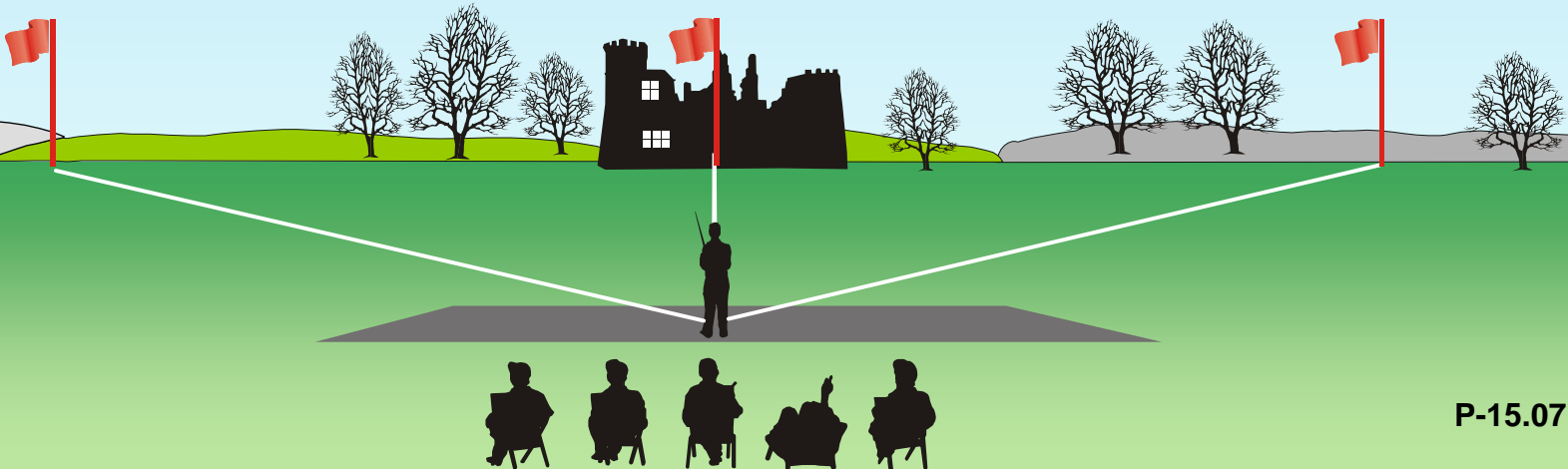
# P-15.07: Roll Combination with consecutive three $\frac{1}{6}$ rolls, three $\frac{1}{6}$ rolls in opposite direction

The  $\frac{1}{6}$  rolls must have the same roll rate.



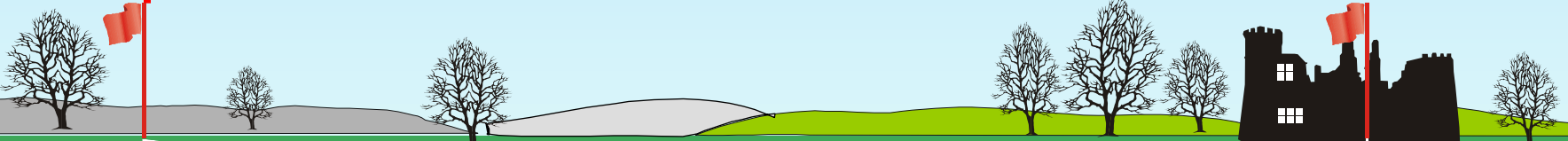
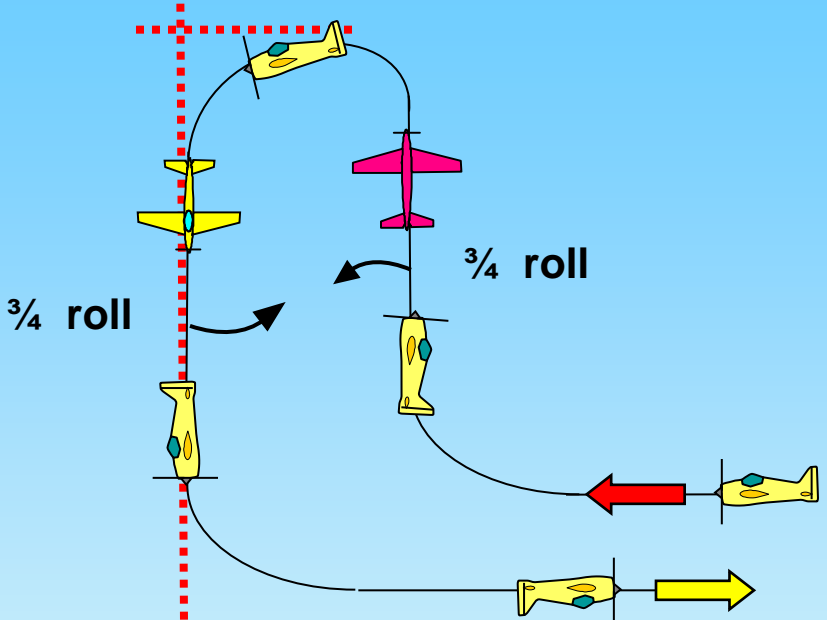
Lines between part rolls must be short and of equal length.

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





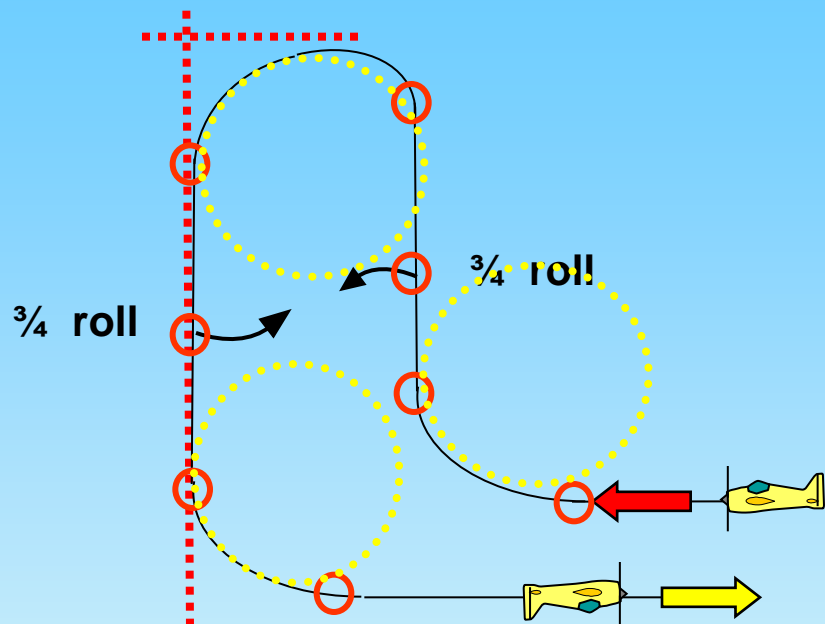
# P-15.08: Pull-Push-Push Humpty-Bump with $\frac{3}{4}$ roll up, up, $\frac{3}{4}$ roll down (Option: $\frac{1}{2}$ up, $\frac{1}{2}$ roll down)





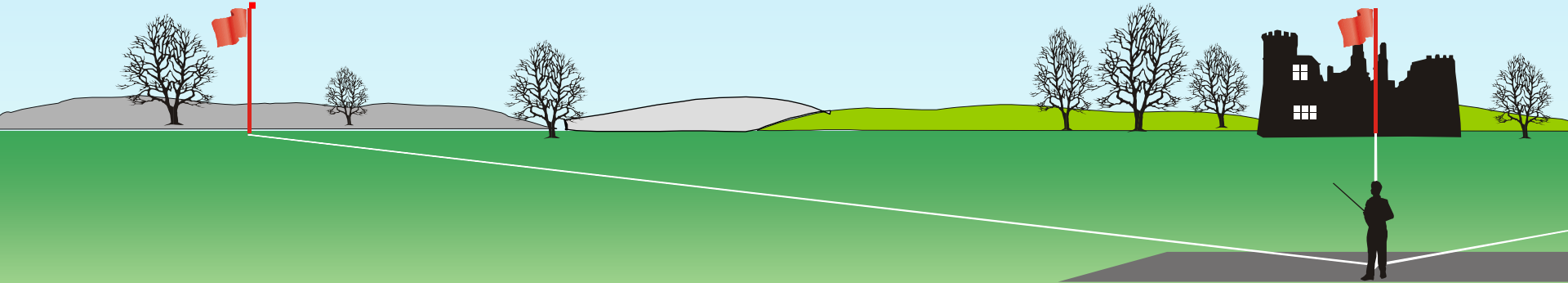


# P-15.08: Pull-Push-Push Humpty-Bump with $\frac{3}{4}$ roll up, up, $\frac{3}{4}$ roll down (Option: $\frac{1}{2}$ up, $\frac{1}{2}$ roll down)



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

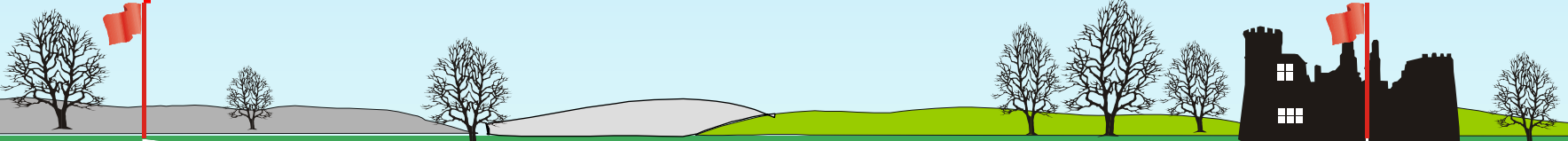
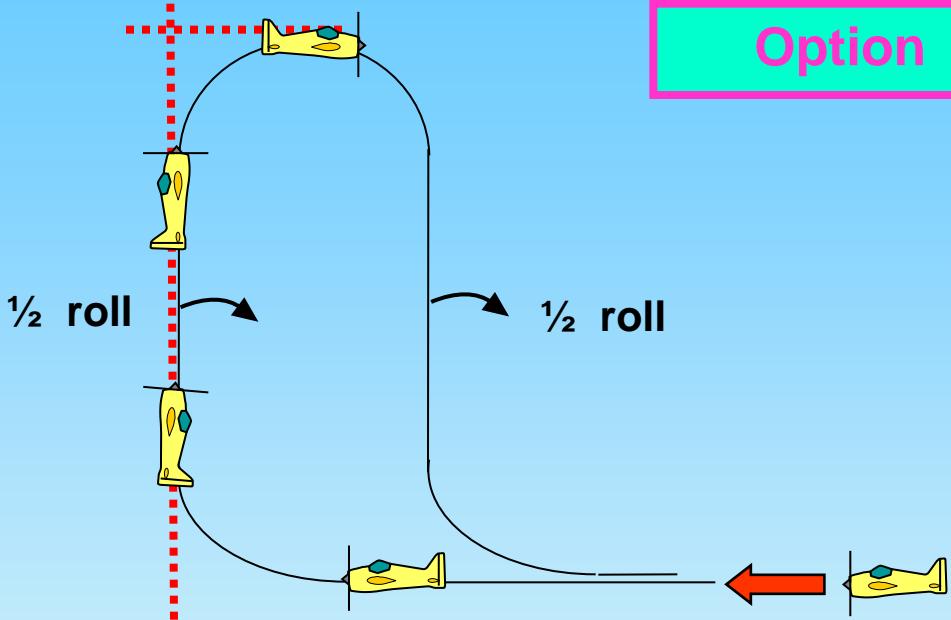
All radii are equal.





# P-15.08: Pull-Push-Push Humpty-Bump with $\frac{3}{4}$ roll up, up, $\frac{3}{4}$ roll down (Option: $\frac{1}{2}$ up, $\frac{1}{2}$ roll down)

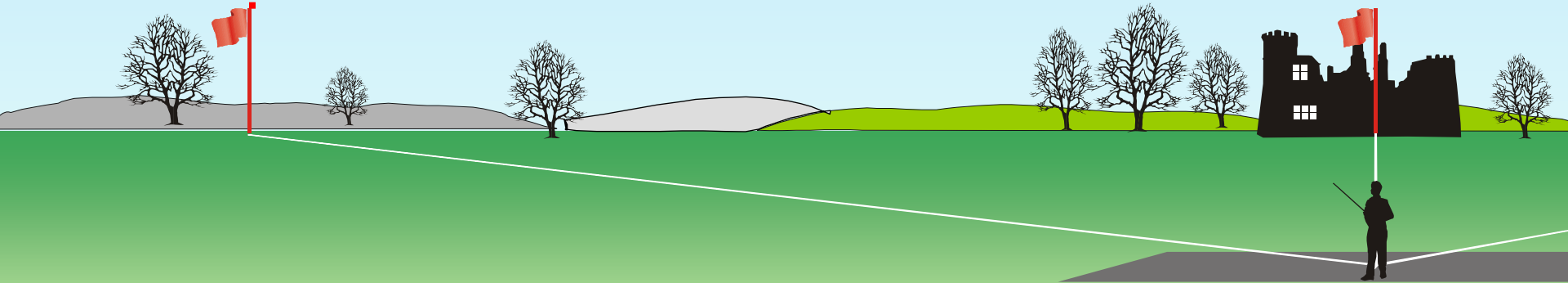
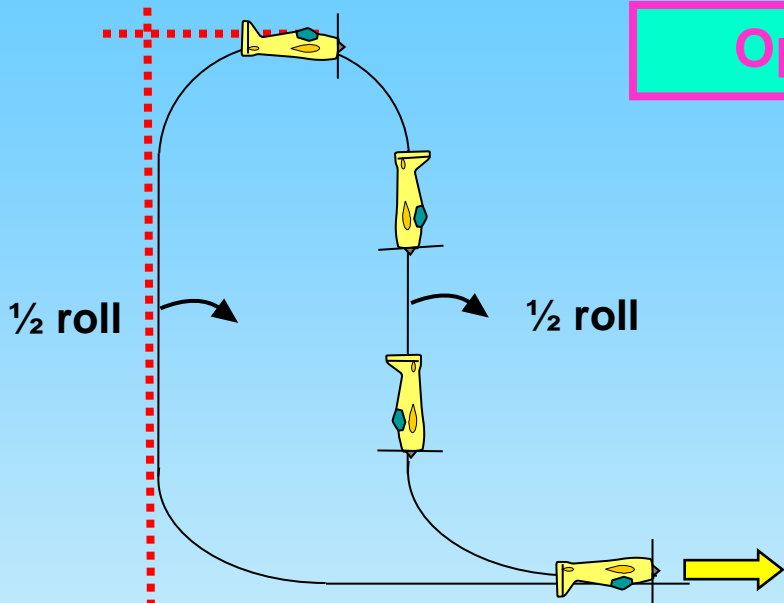
Option





# P-15.08: Pull-Push-Push Humpty-Bump with $\frac{3}{4}$ roll up, up, $\frac{3}{4}$ roll down (Option: $\frac{1}{2}$ up, $\frac{1}{2}$ roll down)

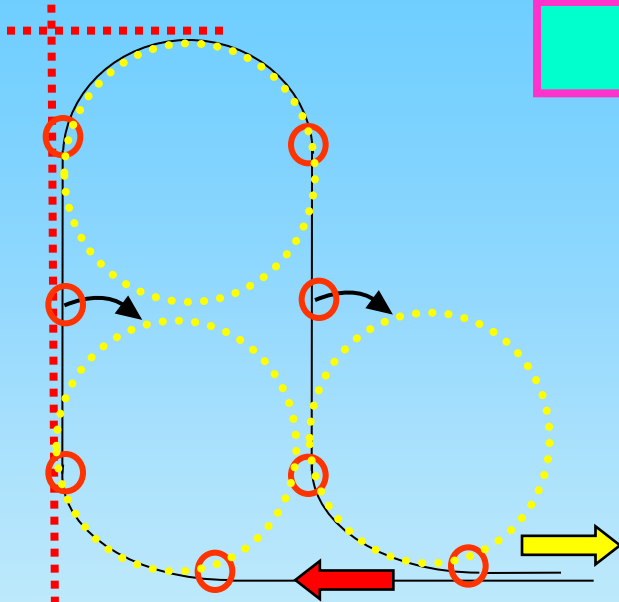
Option





# P-15.08: Pull-Push-Push Humpty-Bump with $\frac{3}{4}$ roll up, up, $\frac{3}{4}$ roll down (Option: $\frac{1}{2}$ up, $\frac{1}{2}$ roll down)

Option



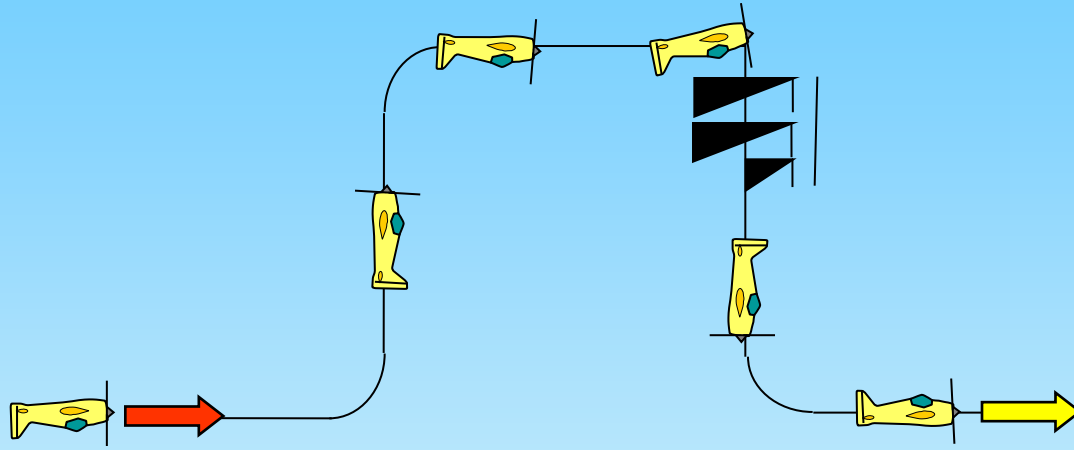
$\frac{1}{2}$  rolls on middle of the lines.

All radii are equal.



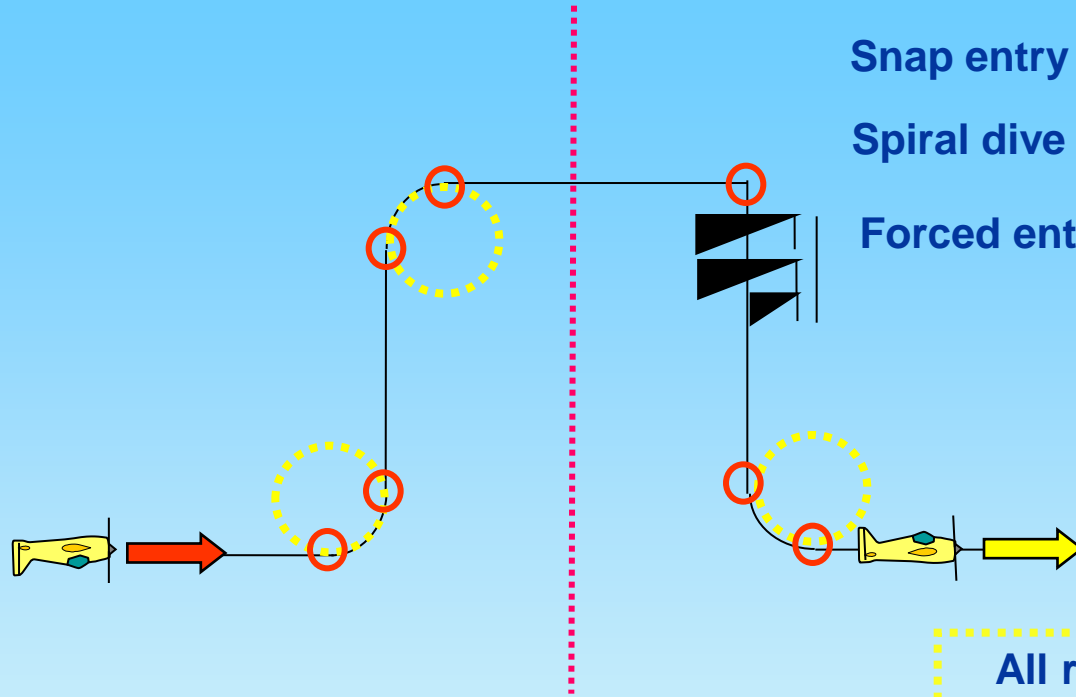


# P-15.09: Top Hat Inverted Spin with 2 ½ turns





# P-15.09: Top Hat Inverted Spin with 2 ½ turns

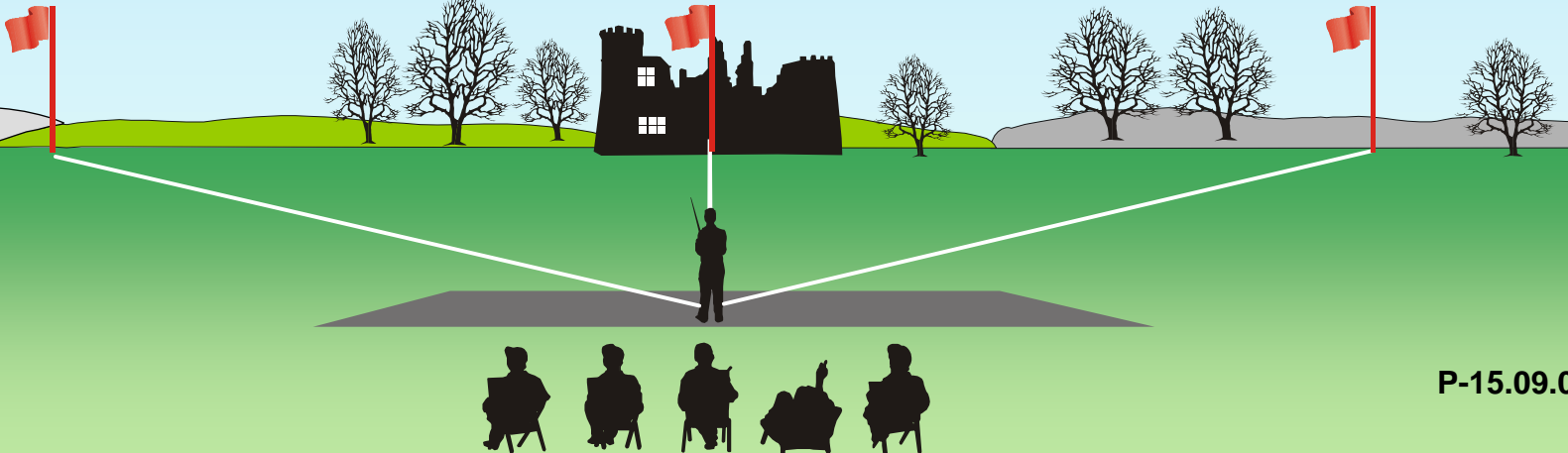


Snap entry - 0 points!

Spiral dive - 0 points!

Forced entry: downgrade.

All radii are equal.

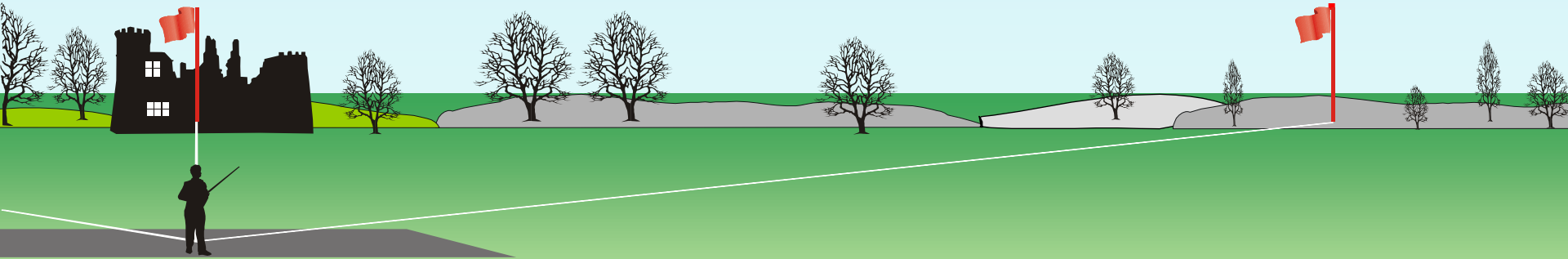
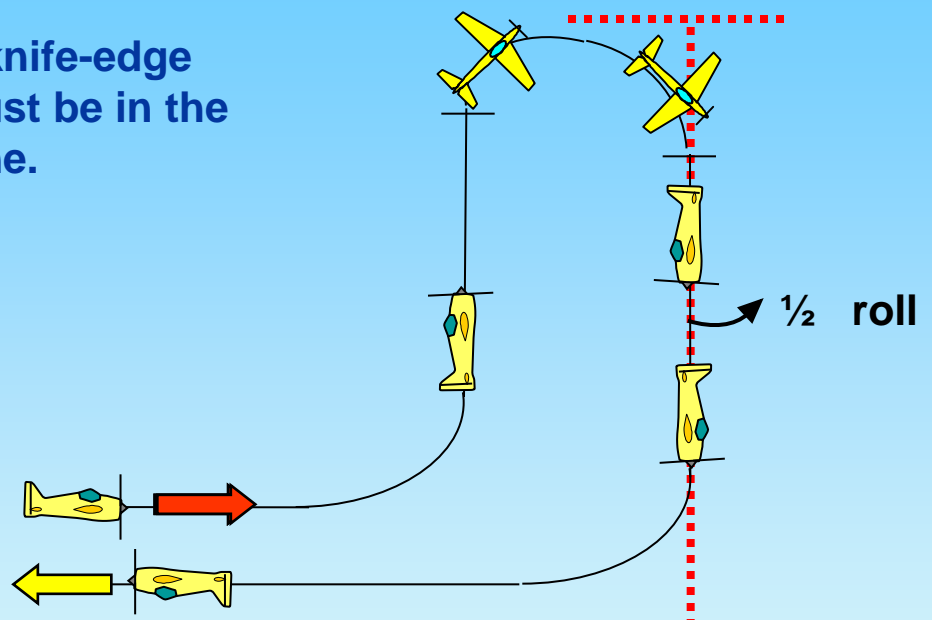




# P-15.10: Pull-Knife-Edge-Push Humpty-Bump with $\frac{1}{2}$ roll down

During the knife-edge the wing must be in the vertical plane.

Half Knife Edge loop

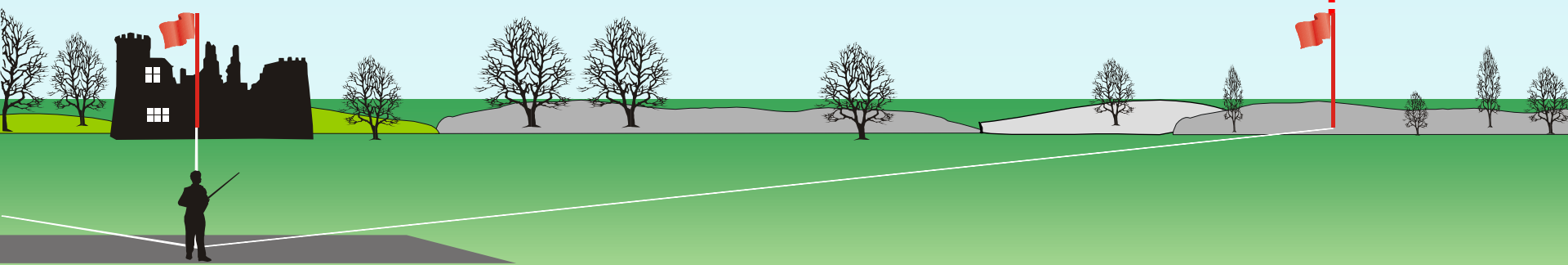
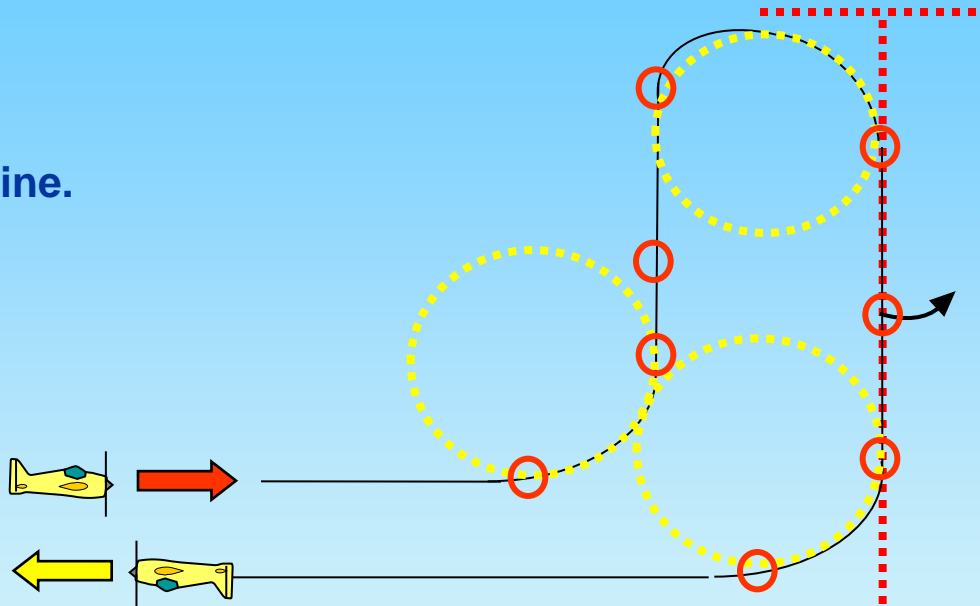




# P-15.10: Pull-Knife-Edge-Push Humpty-Bump with 1/2 roll down

1/2 roll on middle of the line.

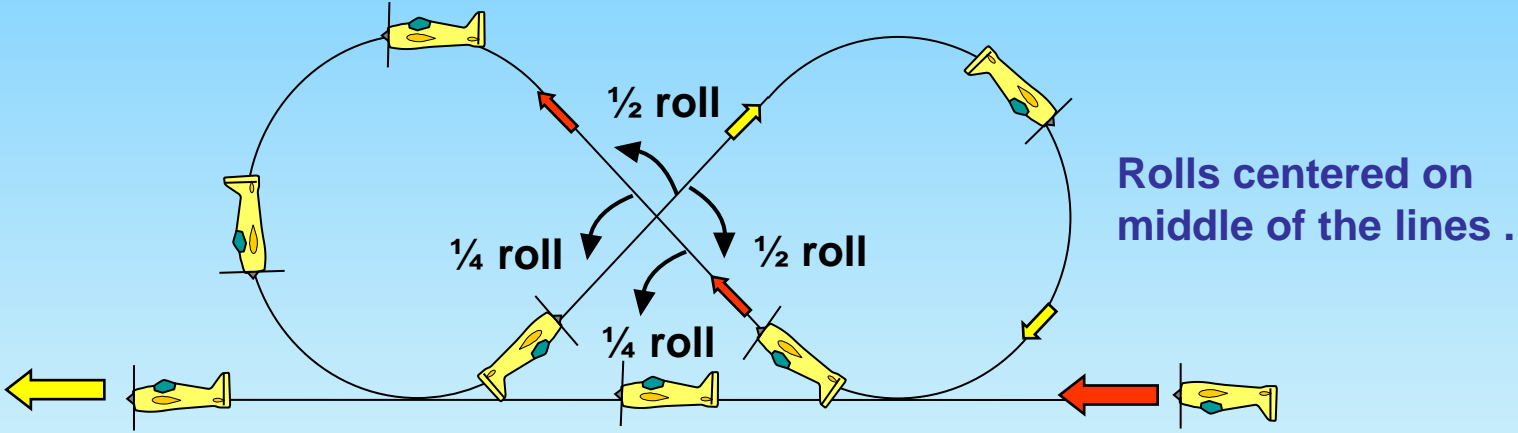
All radii are equal.



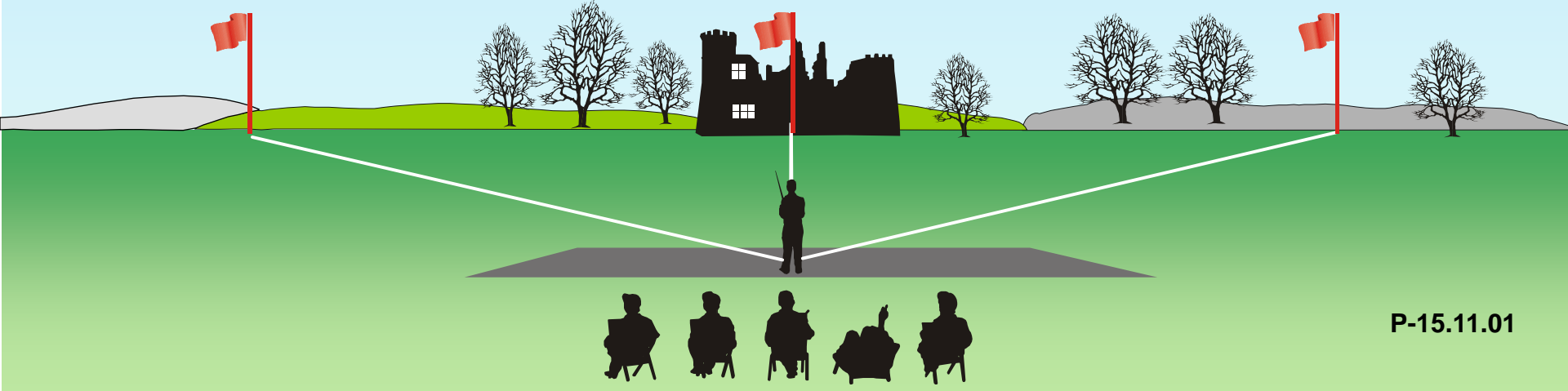




# P-15.11: Reverse Cuban 8 with consecutive two $\frac{1}{4}$ rolls, consecutive two $\frac{1}{2}$ rolls in opposite directions



Rolls centered on middle of the lines .



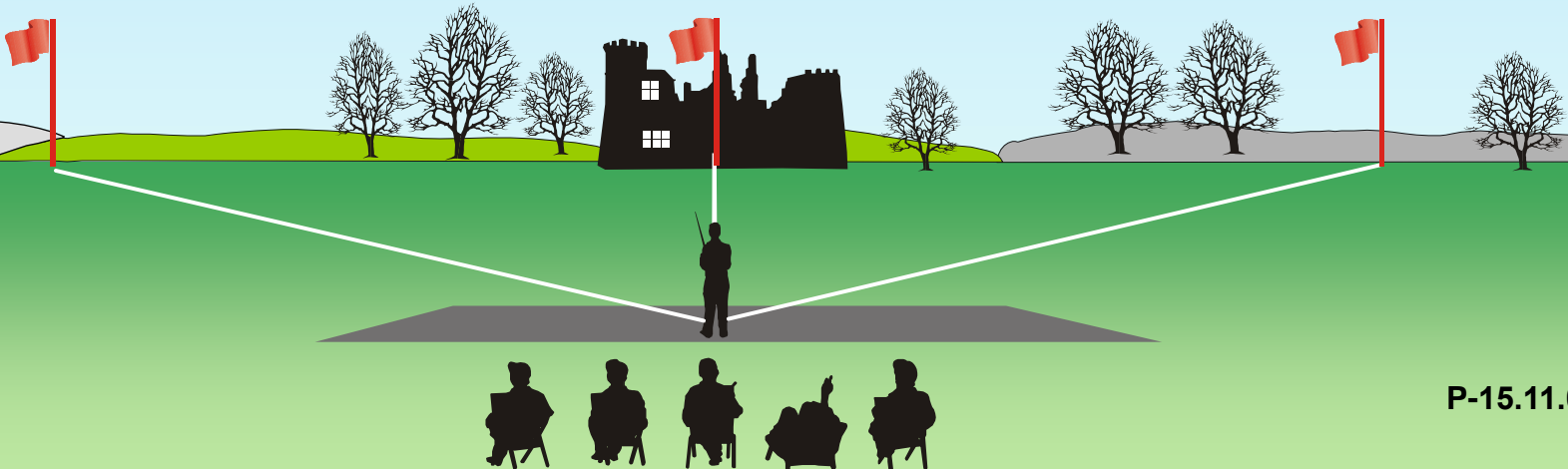
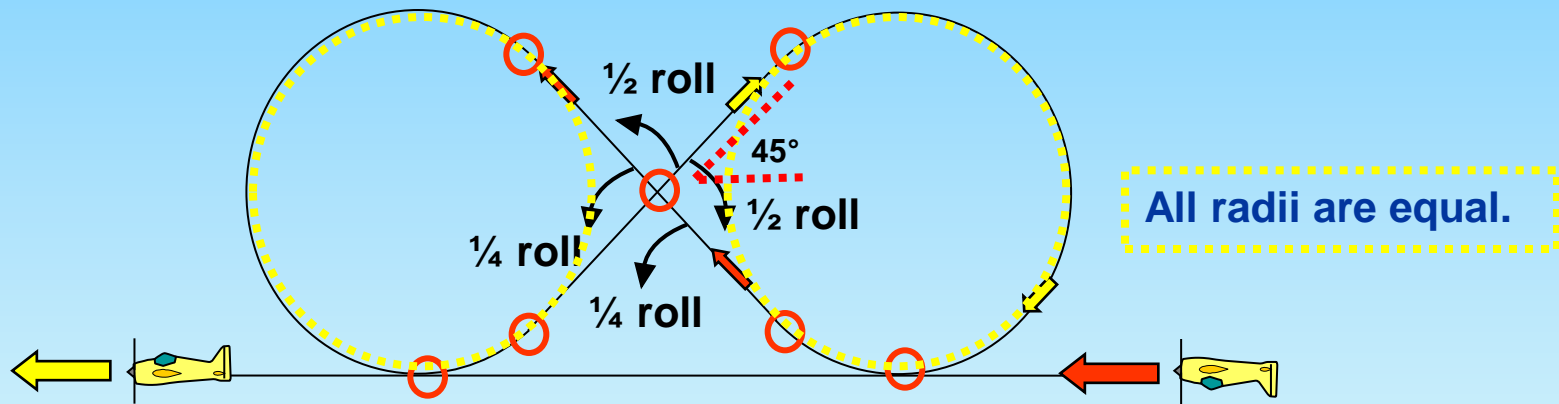


# P-15.11: Reverse Cuban 8 with consecutive two $\frac{1}{4}$ rolls, consecutive two $\frac{1}{2}$ rolls in opposite directions

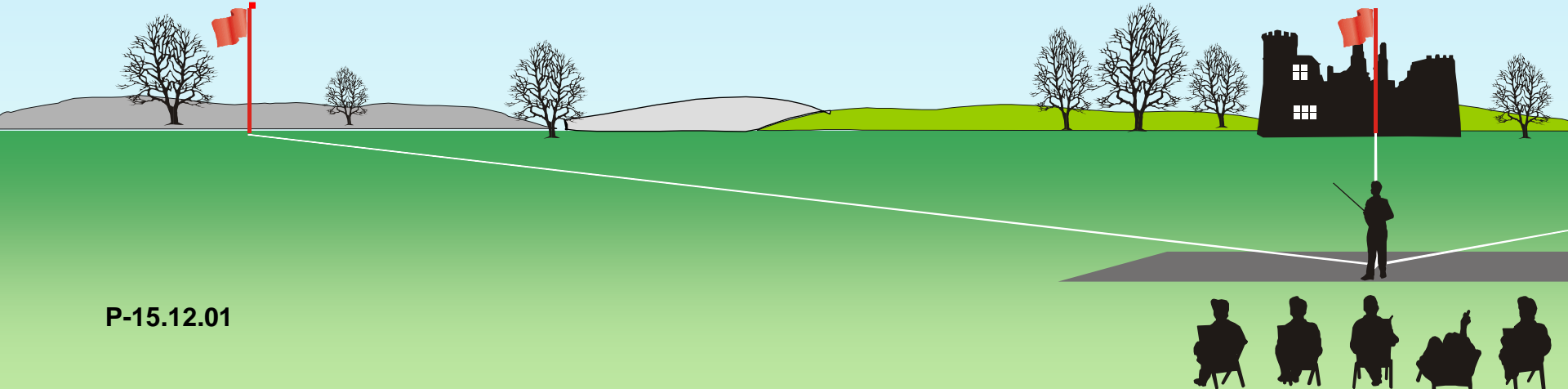
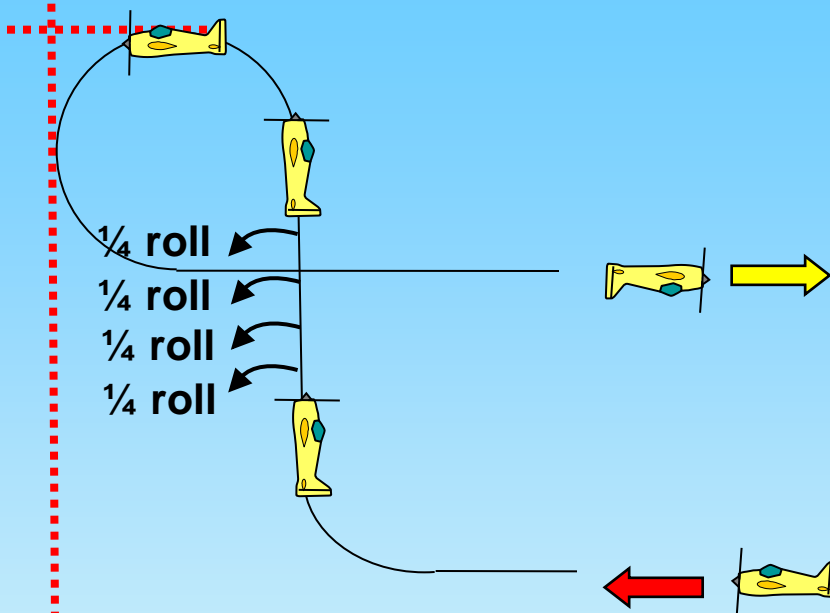
All part rolls must have the same roll rate.

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

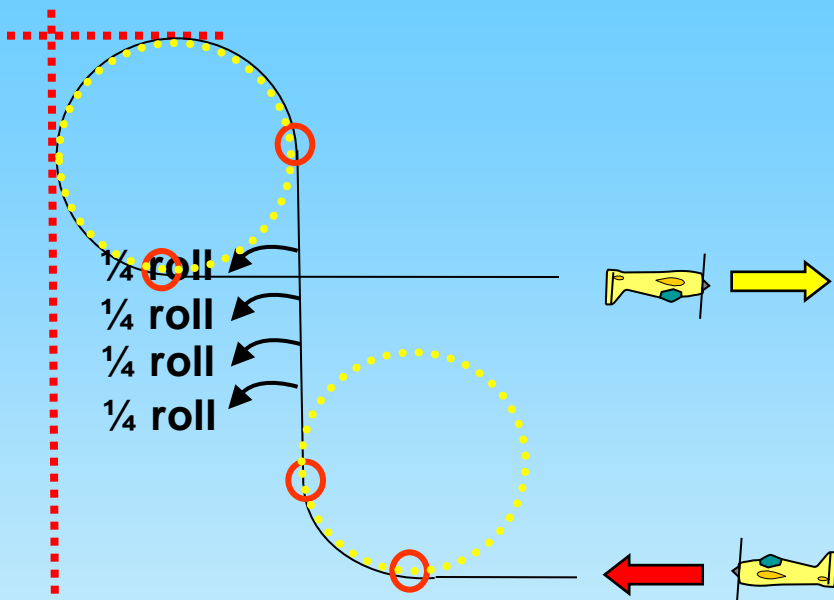
Between part rolls in opposite direction there must be no line.



# P-15.12 Figure 9 with consecutive four 1/4 rolls up

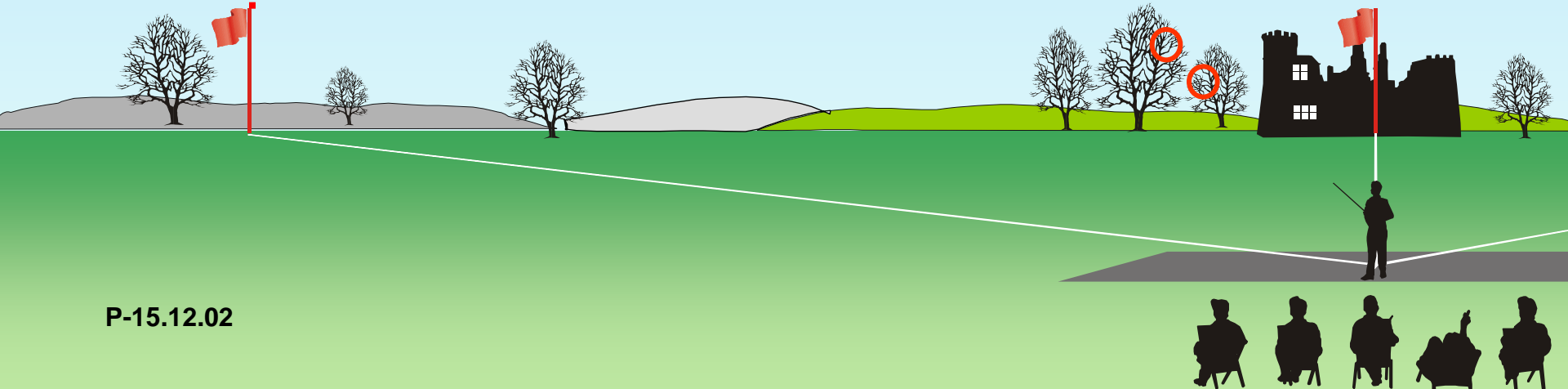


# P-15.12 Figure 9 with consecutive four 1/4 rolls up



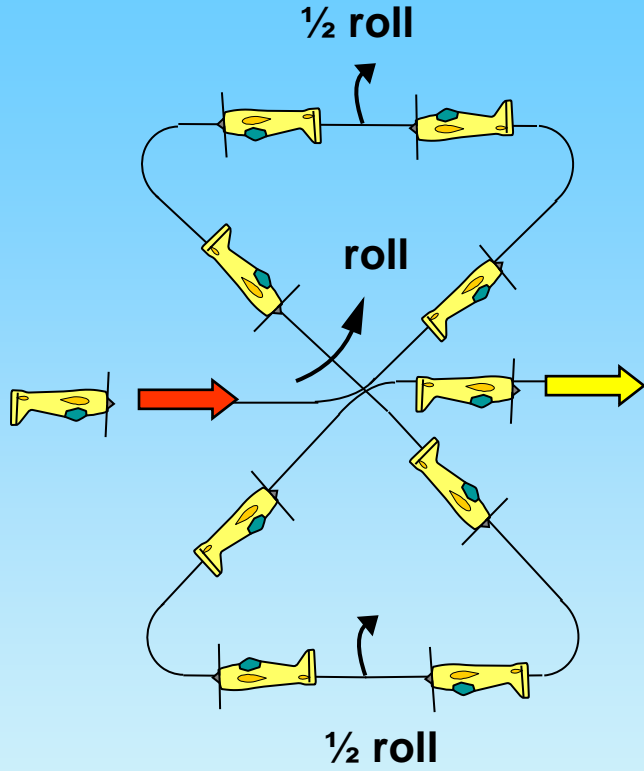
1/4 rolls centered on middle of the line.

All radii are equal.



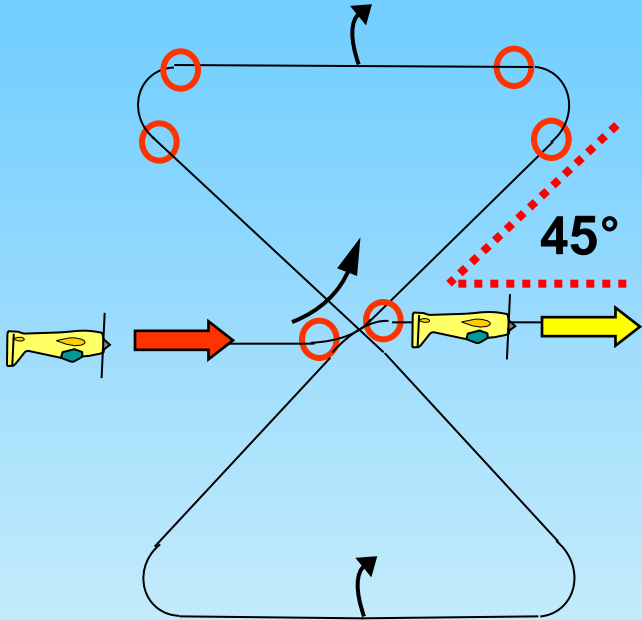


# P-15.13: Hour-Glass with 1/2 roll, roll, 1/2 roll



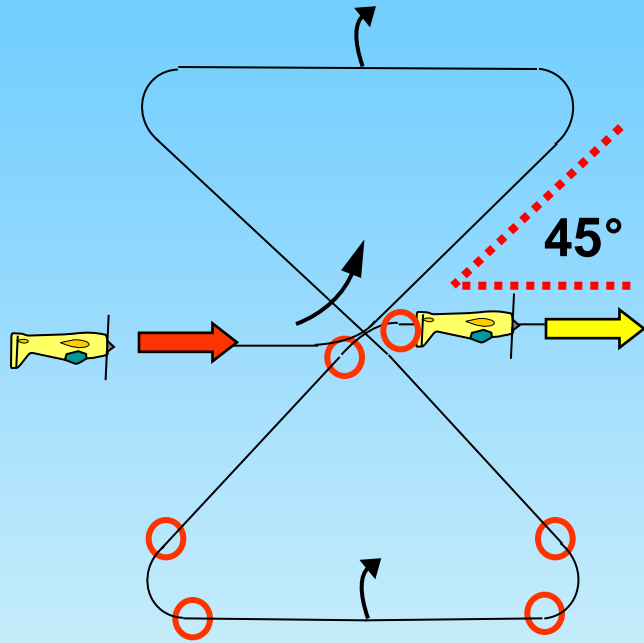


# P-15.13: Hour-Glass with 1/2 roll, roll, 1/2 roll



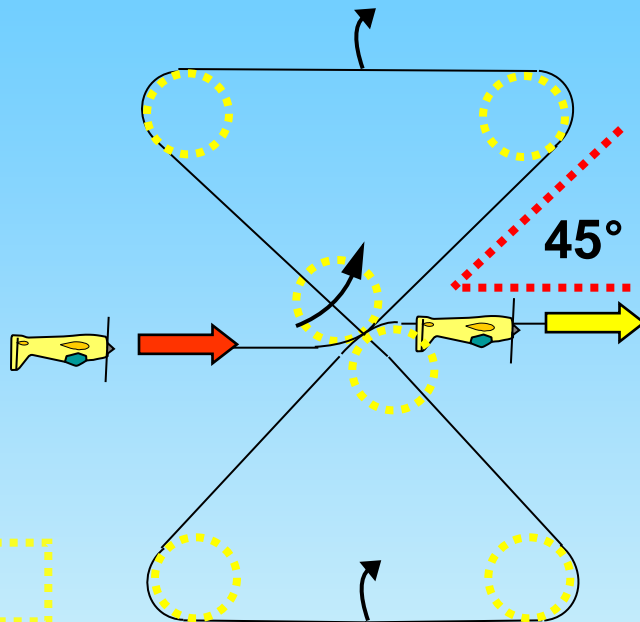


# P-15.13: Hour-Glass with 1/2 roll, roll, 1/2 roll





# P-15.13: Hour-Glass with $\frac{1}{2}$ roll, roll, $\frac{1}{2}$ roll



Rolls on middle of the lines .

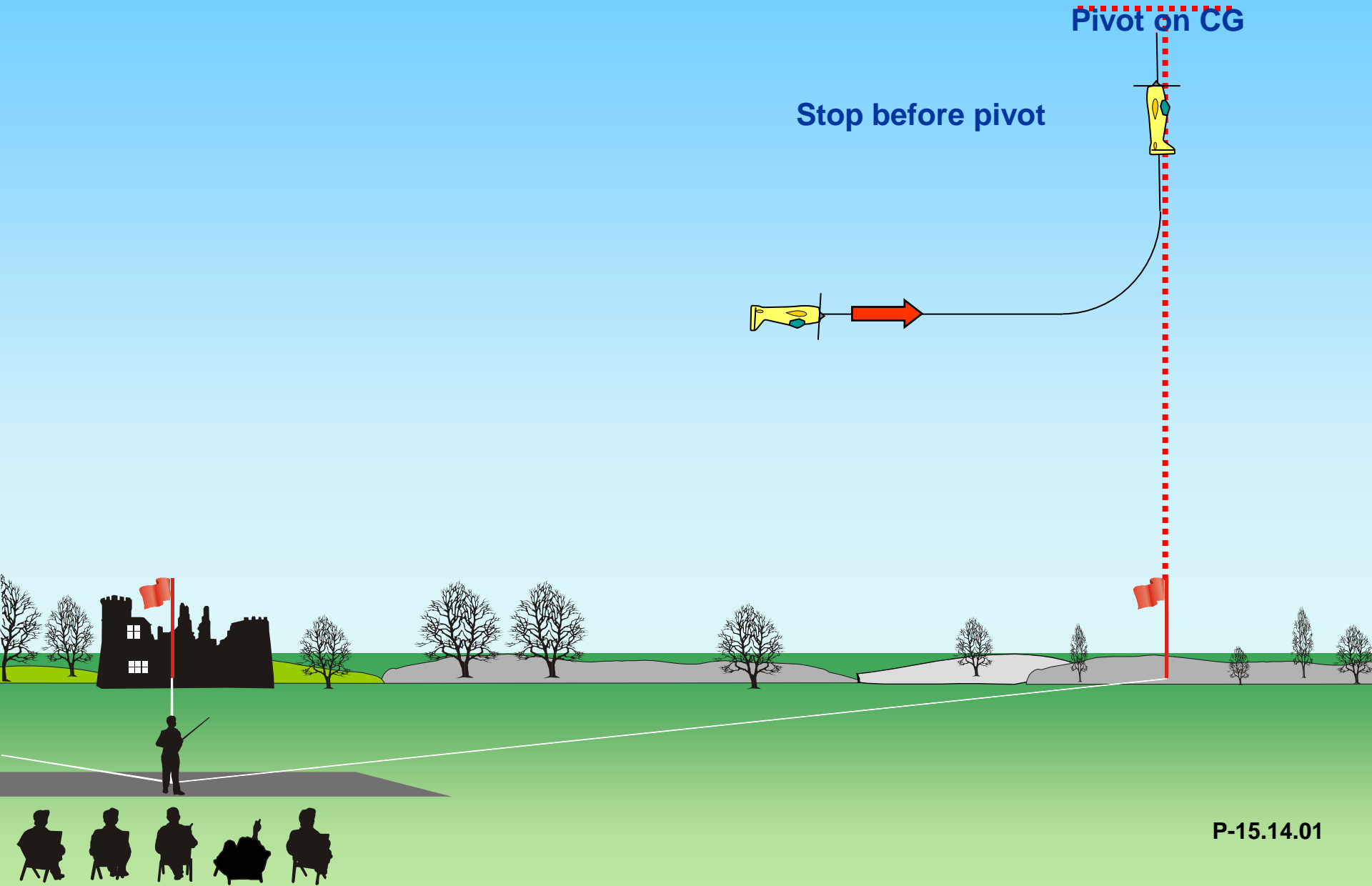
All radii are equal.





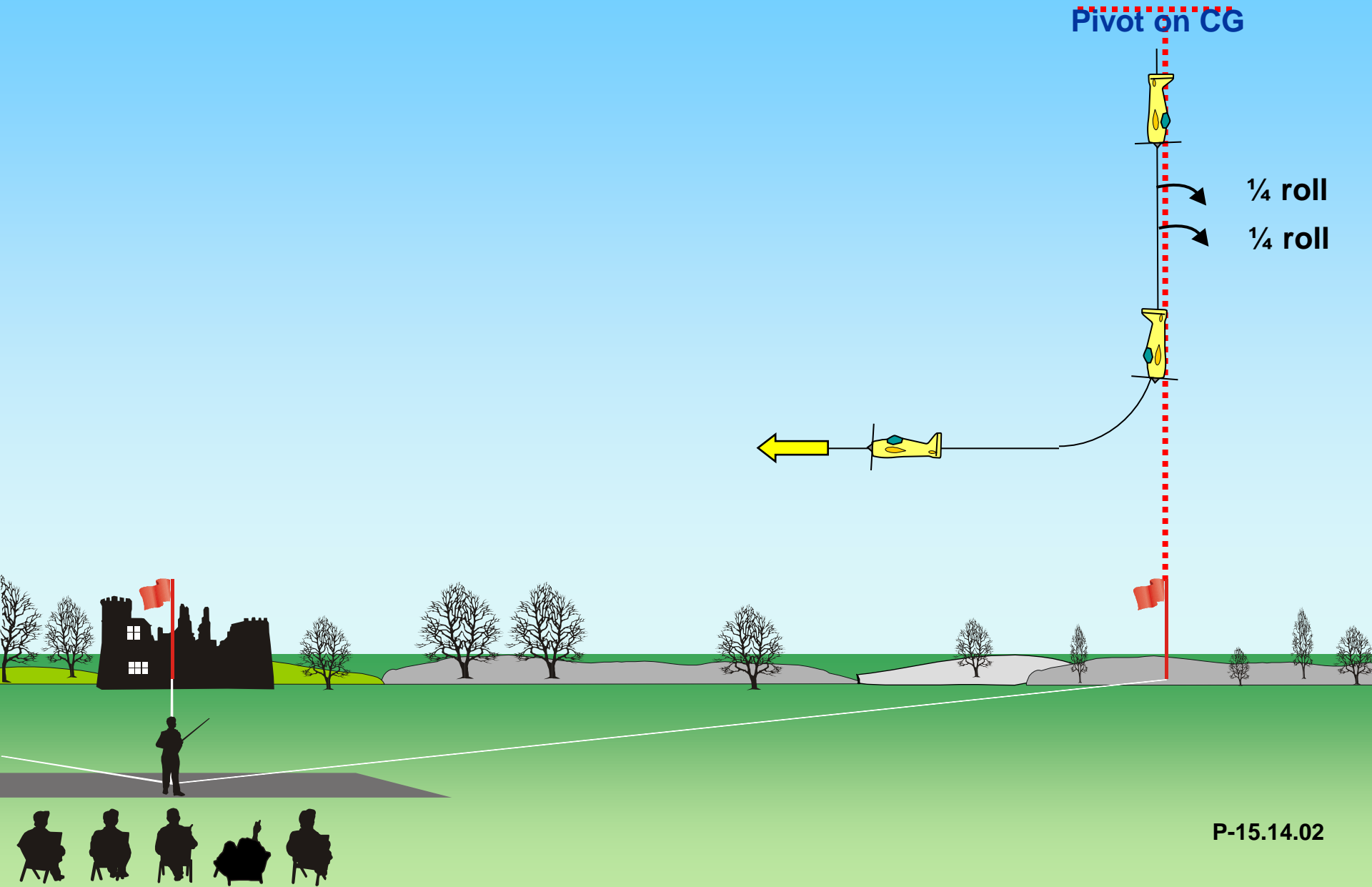


# P-15.14: Stall Turn with consecutive two ¼ rolls down





# P-15.14: Stall Turn with consecutive two $\frac{1}{4}$ rolls down



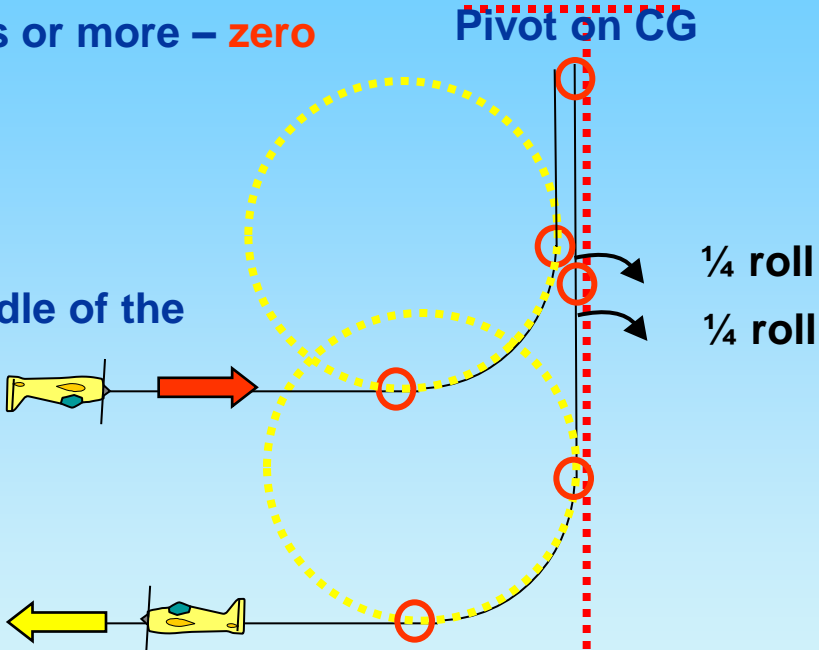


# P-15.14: Stall Turn with consecutive two ¼ rolls down

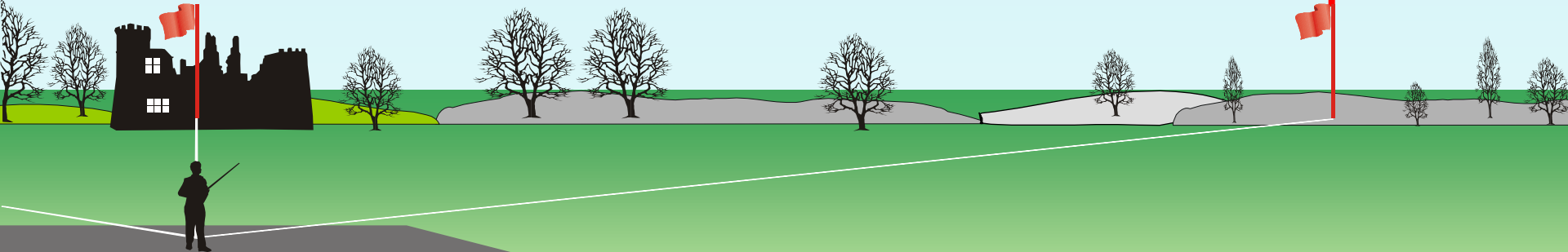
Two wing spans or more – zero points!

Pivot on CG

¼ rolls on middle of the line.

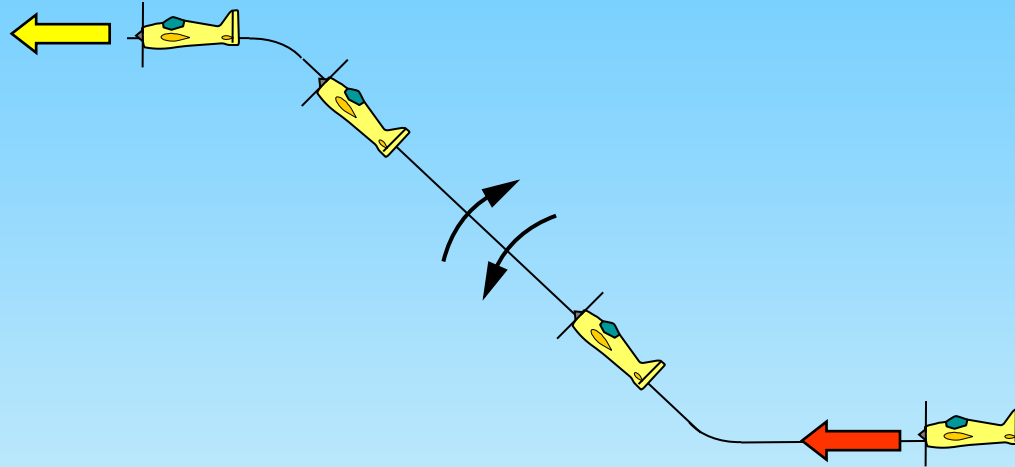


All radii are equal.



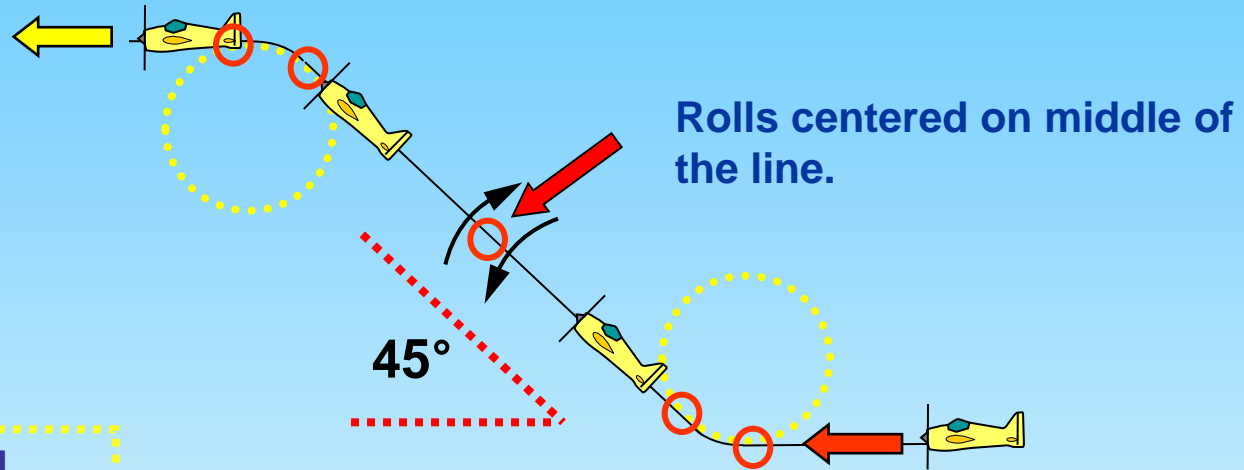


# P-15.15: Upline with consecutive two rolls in opposite directions





# P-15.15: Upline with consecutive two rolls in opposite directions

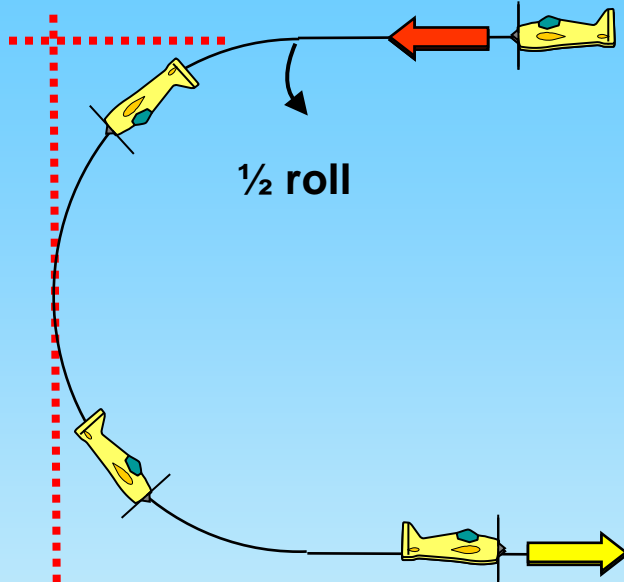


All radii are equal.

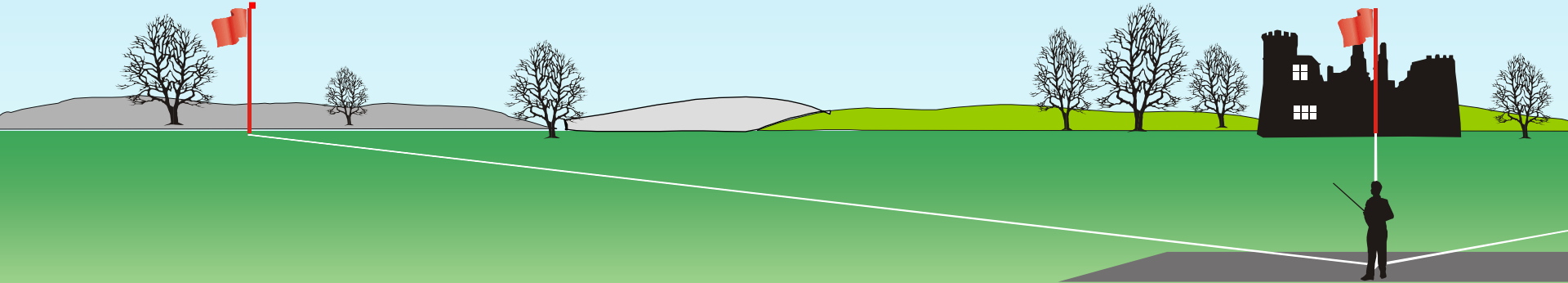
Between rolls in opposite direction there must be no line.



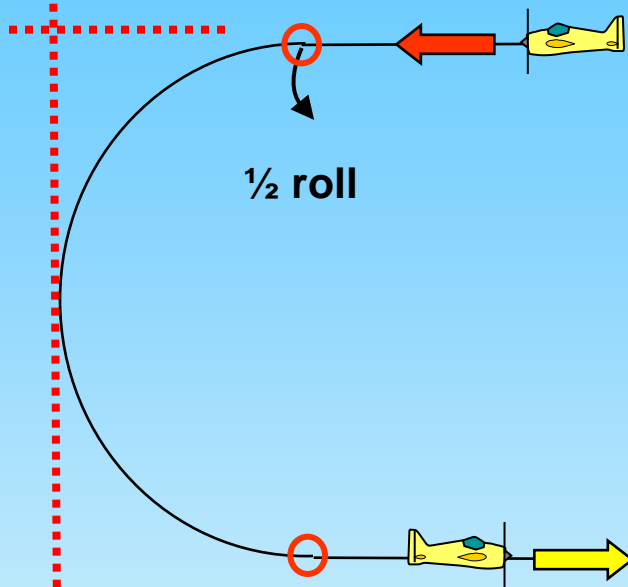
# P-15.16: Split S with 1/2 roll



1/2 roll



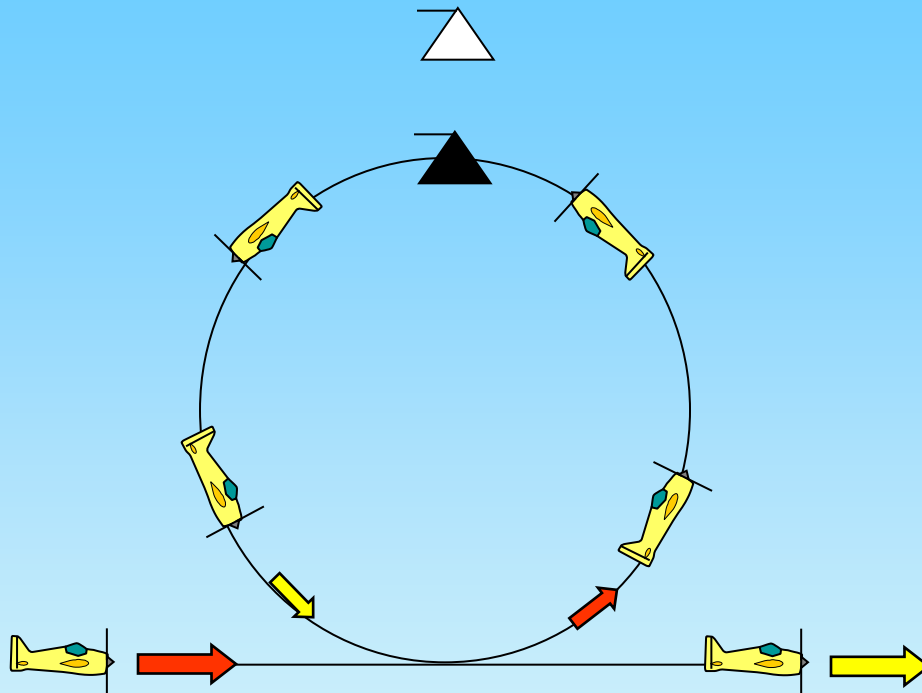
# P-15.16: Split S with $\frac{1}{2}$ roll



The half loops must follow immediately after the  $\frac{1}{2}$  roll.



# P-15.17: Avalanche with snap roll on top







# P-15.17: Avalanche with snap roll on top

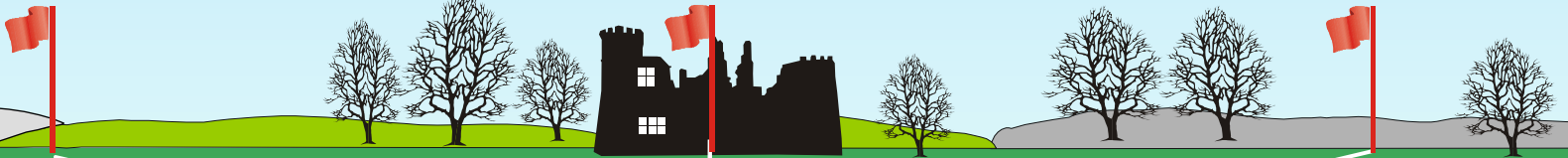
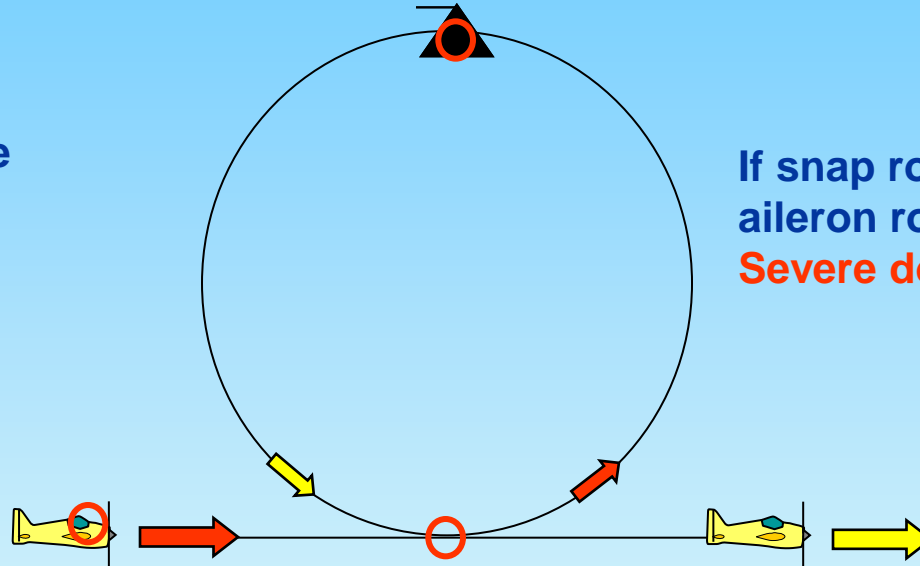


Snap roll may be positive or negative.



Loop must be round.

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

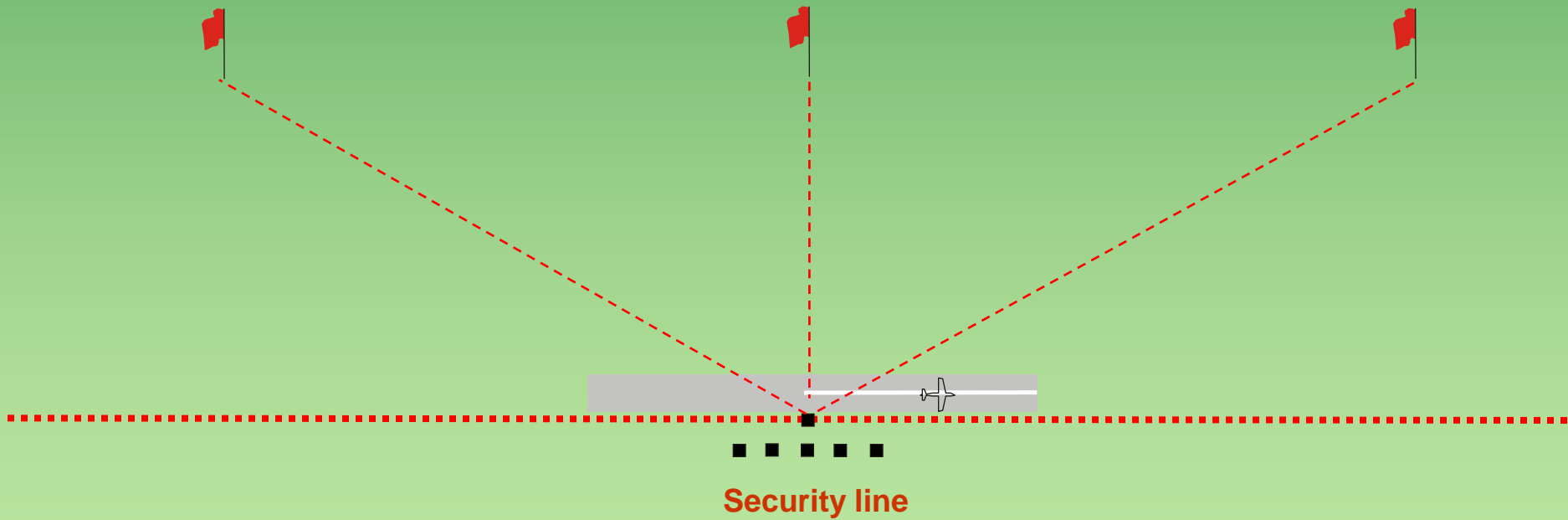




# Landing procedure ( not judged, not scored )

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

 **wind**



Forget **WHO** is flying

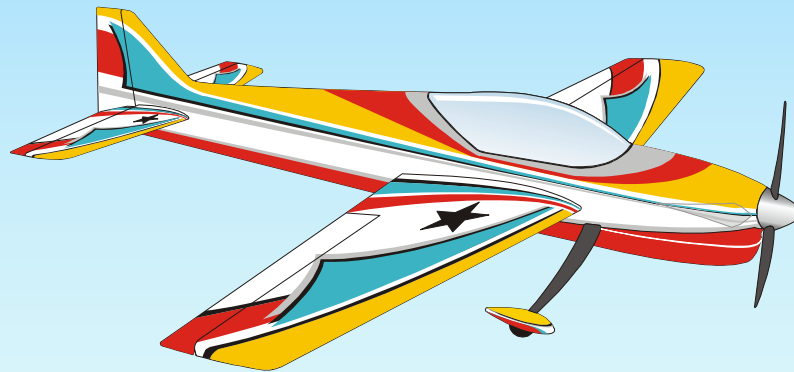
(friend, rival, countryman, flier from other nation)

Forget **WHAT** is flying

(2-stroke, 4-stroke, electric, turbine, rubber-power)

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

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



**Thank you!**

Peter Uhlig, September 2013