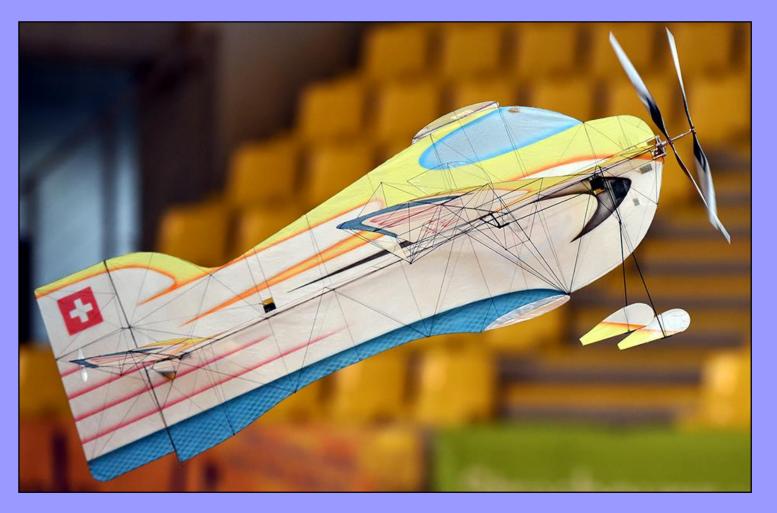
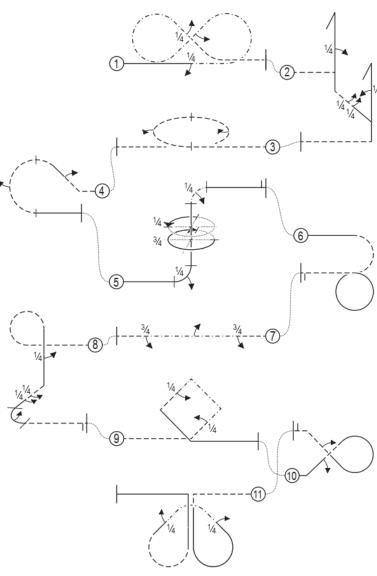
Class F3P Radio Control Indoor Aerobatic Model Aircraft



Preliminary Schedule F3P-AP 21 (2020-2021)

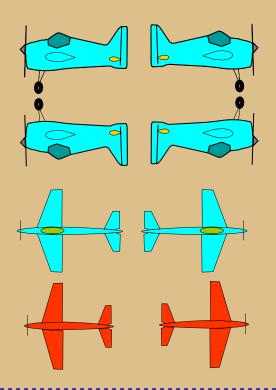
PRELIMINARY SCHEDULE AP-21 (2020-2021)



CIAM F3 Aerobatics Drawings by Ken Hirose Sep. 2019

Take-off procedure (not judged, not scored)

Explainations:



Aircraft upright

Aircraft inverted

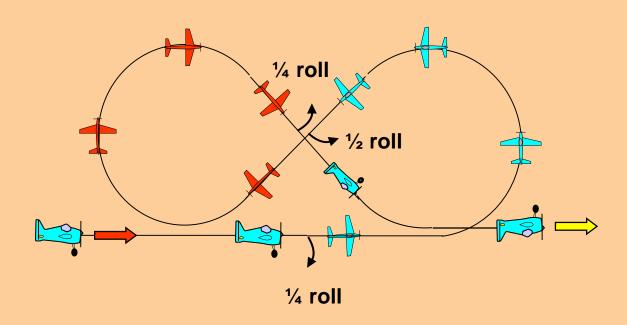
Aircraft in Knife Edge View from Top

Aircraft in Knife Edge View from Below

Safety line



AP 21.01 Knife-Edge Cuban Eight with quarter roll, half roll, quarter roll



From upright perform a ¼ roll in the center, perform a 5/8 knife edge loop into a 45 degree downline, perform a ½ roll, perform a ¾ knife edge loop into a 45 degree downline, perform a ¼ roll, push through a 1/8 loop, exit inverted.



AP-21.01 Knife-Edge Cuban Eight with quarter roll, half roll, quarter roll

1/2 roll and second 1/4 roll on middle of the line.

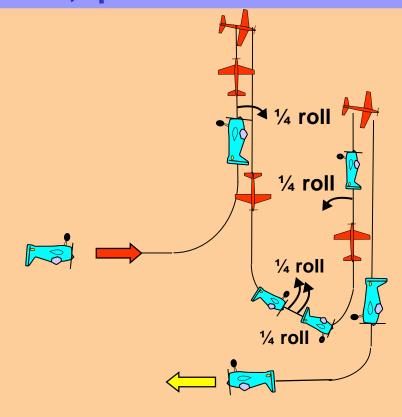
All radii are equal.

Entry and exit must be at the same altitude.

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

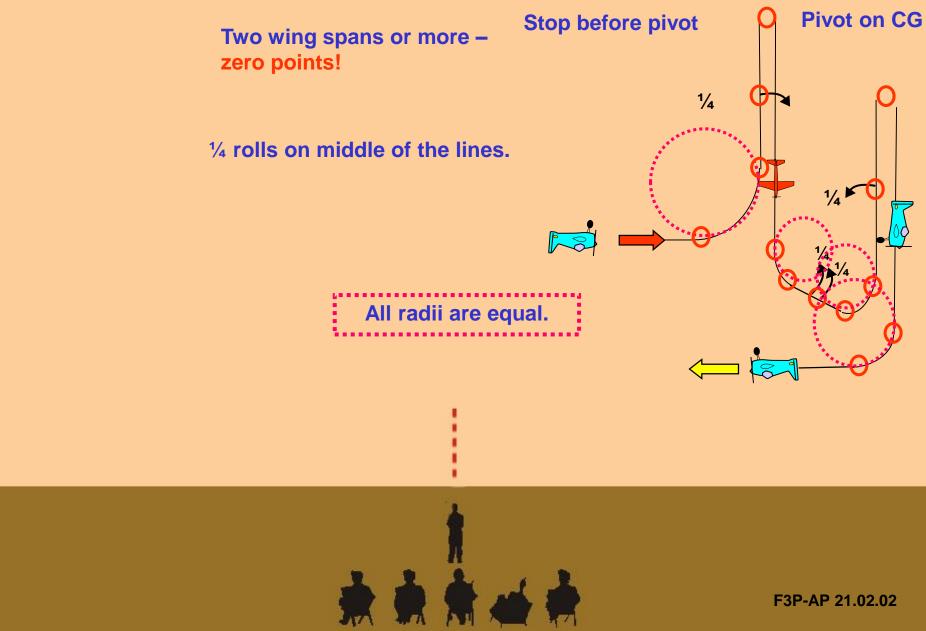


AP 21.02 Crossbox Stall Turn combination with quarter roll, two consecutive quarter rolls, quarter roll

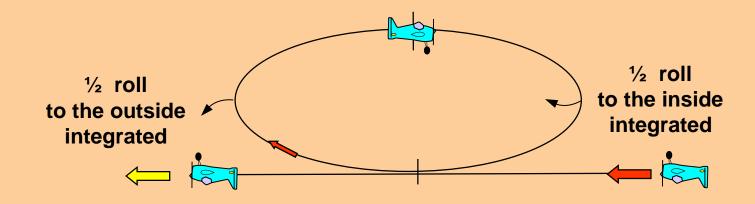


From inverted, push through a ¼ loop into a vertical upline, perform a ¼ roll, perform a stall turn into a vertical downline, push through a ¼ loop into a horizontal line, perform consecutively two ¼ rolls, pull through a ¼ loop into a vertical upline, perform a ¼ roll perform a stall turn into a vertical downline, push through a quarter loop, exit inverted.

AP-21.02 Crossbox Stall Turn combination with quarter roll, two consecutive quarter rolls, quarter roll



AP-21.03 Horizontal Circle with two half rolls opposite integrated



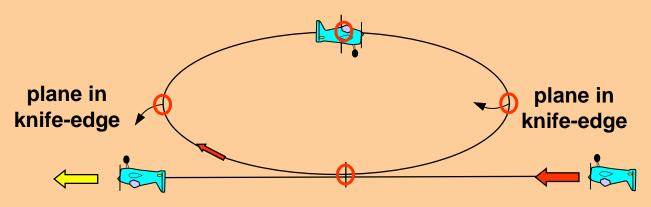
From inverted, perform a circle while integrating a 1/2 roll to the outside and another $\frac{1}{2}$ roll to the inside, exit inverted.



AP-21.03 Horizontal Circle with two half rolls opposite integrated

Roll rate must be constant.

Roll reversal must be immediate.



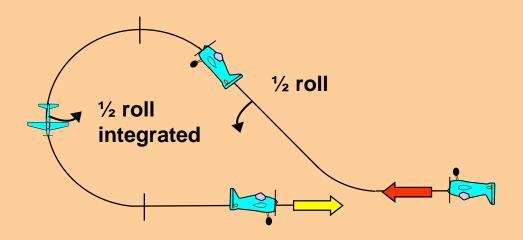
First ½ roll must be to the outside.

1/2 rolls are integrated on circular flightpath and must be in opposite direction.

Circle must be of equal and constant radius and must be flown at the same altitude.



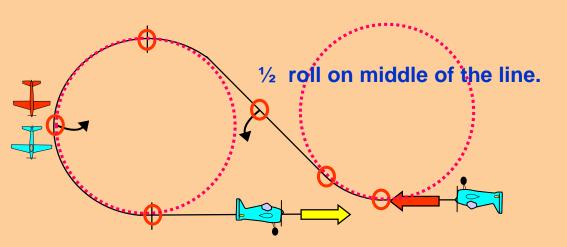
AP-21.04 Half Reverse Cuban Eight with half roll, half roll integrated



From inverted, push through a one eighth loop into a 45 degree upline, perform a $\frac{1}{2}$ roll, push through a 5/8 loop while integrating a $\frac{1}{2}$ roll into the last 180 degrees of the 5/8 loop, exit upright.



AP-21.04 Half Reverse Cuban Eight with half roll, half roll integrated

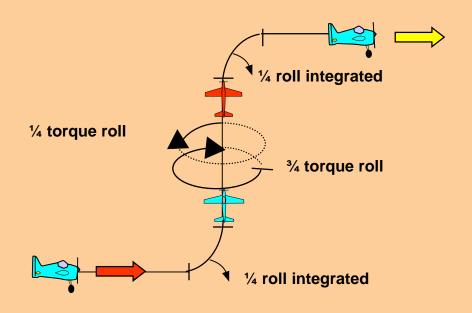


1/2 roll must be integrated on circular flightpath into the last 180 degrees of the 5/8 loop.

All radii are equal.



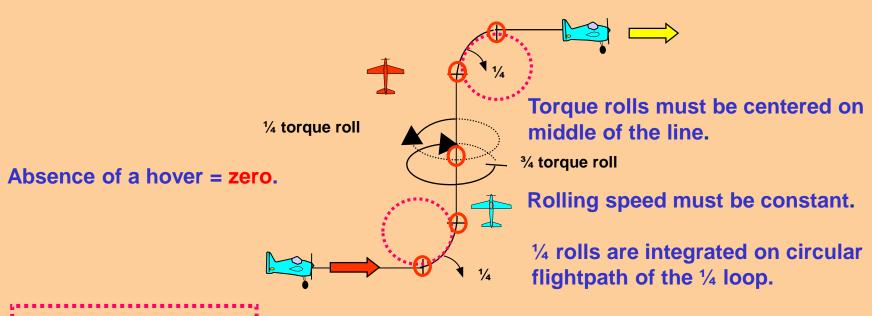
AP-21.05 Three quarter Torque Roll, Quarter Torque Roll in opposite direction with quarter rolls integrated into the quarter loops



From upright, pull through a ¼ loop into a vertical upline while integrating a ¼ roll, perform a ¾ torque roll, perform a ¼ torque roll in opposite direction, perform a ¼ knifeedge loop while integrating a ¼ roll, exit upright.



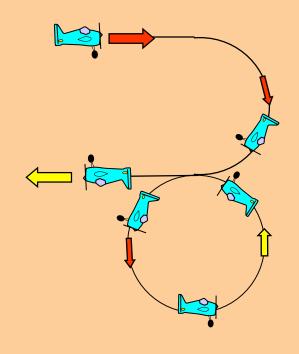
AP-21.05 Three quarter Torque Roll, Quarter Torque Roll in opposite direction with quarter rolls integrated into the quarter loops



All radii are equal.



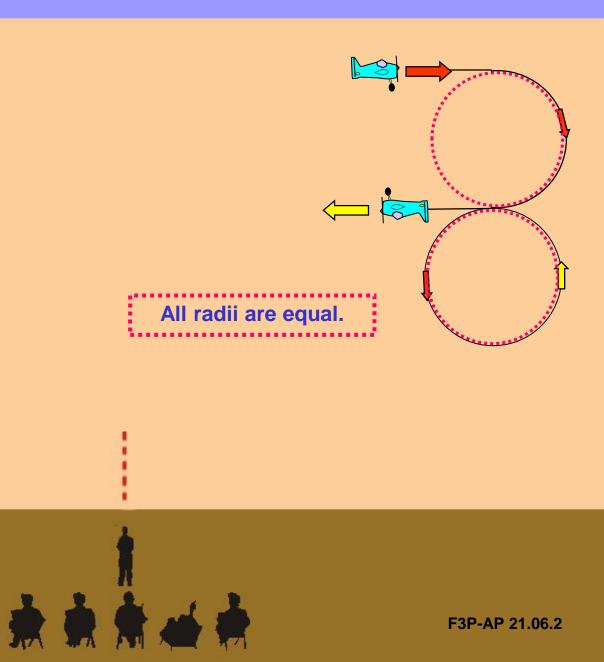
AP-21.06 Half Outside Loop, Loop



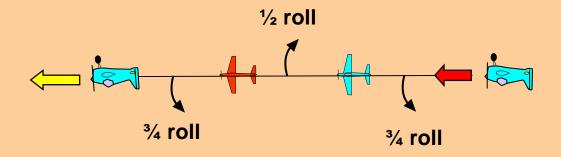
From upright push through a 1/2 outside loop, pull through a loop, exit inverted.



AP-21.06 Half Outside Loop, Loop



AP-21.07 Knife-Edge Roll Combination with three quarter roll, half roll opposite, three quarter roll

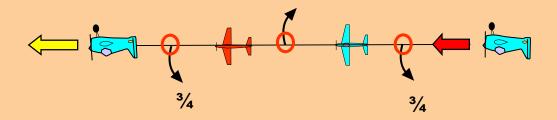


From inverted perform a ¾ roll into knifeedge flight, perform a ½ roll in opposite direction into knife-edge flight, perform a ¾ roll in opposite direction to the ½ roll, exit inverted.



AP-21.07 Knife-Edge Roll Combination with three quarter roll, half roll opposite, three quarter roll

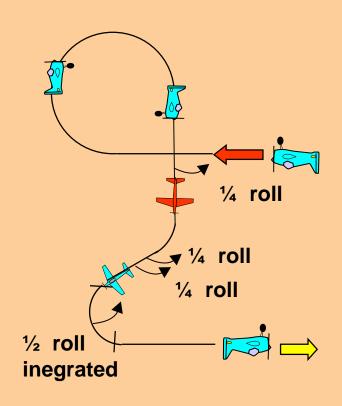
Part rolls must have the same roll rate.



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



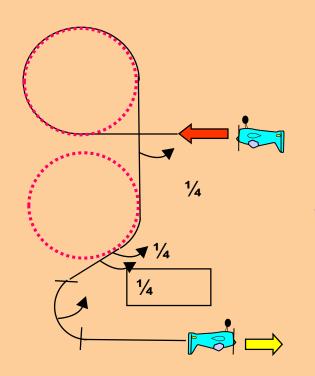
AP-21.08 Figure Nine Crossbox Combination with quarter roll, two consecutive quarter rolls, half roll integrated



From inverted, push through a ¾ loop into a vertical downline, perform a ¼ roll, push through a ¼ loop into a horizontal line, perform consecutively two ¼ rolls, perform a ¼ circle while integrating a ½ roll, exit inverted.



AP-21.08 Figure Nine Crossbox Combination with quarter roll, two consecutive quarter rolls, half roll integrated

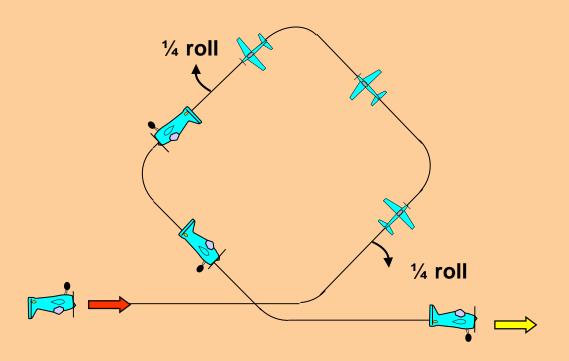


1/4 rolls on middle of the lines.

All radii of the part loops are equal.

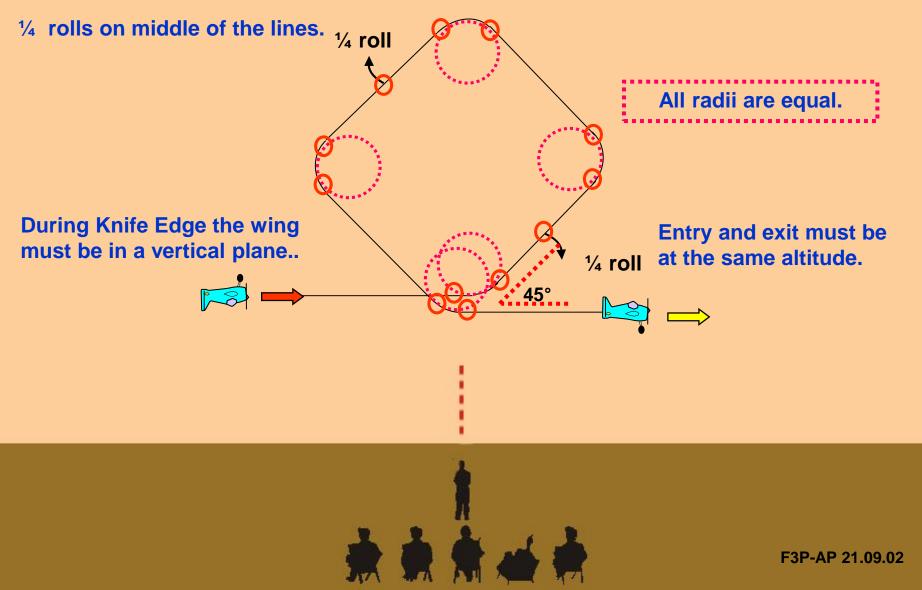


AP-21.09 Square Loop on Corner, with quarter roll, quarter roll

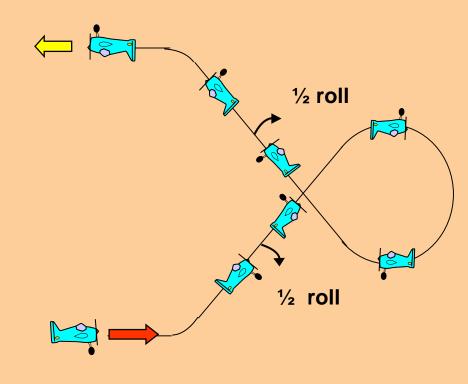


From inverted, push through a 1/8 loop into a 45 degree upline, perform a quarter roll, perform a ¼ knife-edge loop into a 45 degree upline, perform a ¼ knife-edge loop into a 45 degree downline, perform a quarter roll, pull through a ¼ loop into a 45 degrees downline, pull through a 1/8 loop, exit upright.

AP-21.09 Square Loop on Corner, with quarter roll, quarter roll



AP-21.10 Comet with half roll, half roll

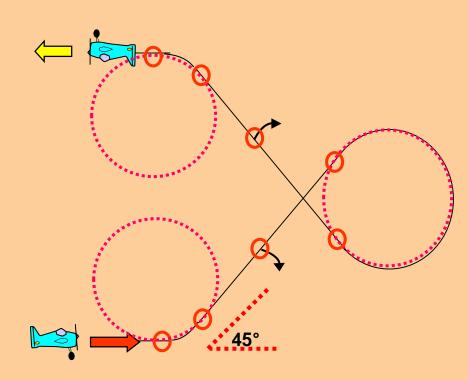


From upright, pull through a 1/8 loop into a 45degree upline, perform a half roll, pull through a ¾ loop into another 45 degree upline, perform a ½ roll, pull through a 1/8 loop, exit inverted.



AP-21.10 Comet with half roll, half roll

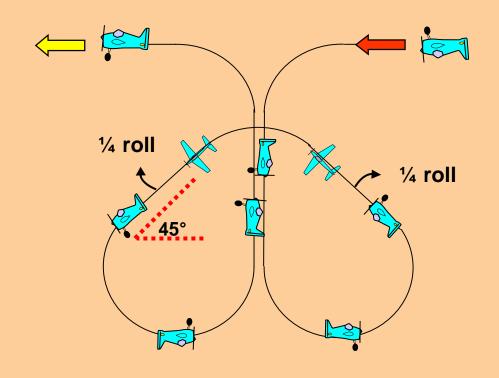
All radii are equal.



1/2 rolls on middle of the lines, but not necessarily in the center of the manoeuvre.



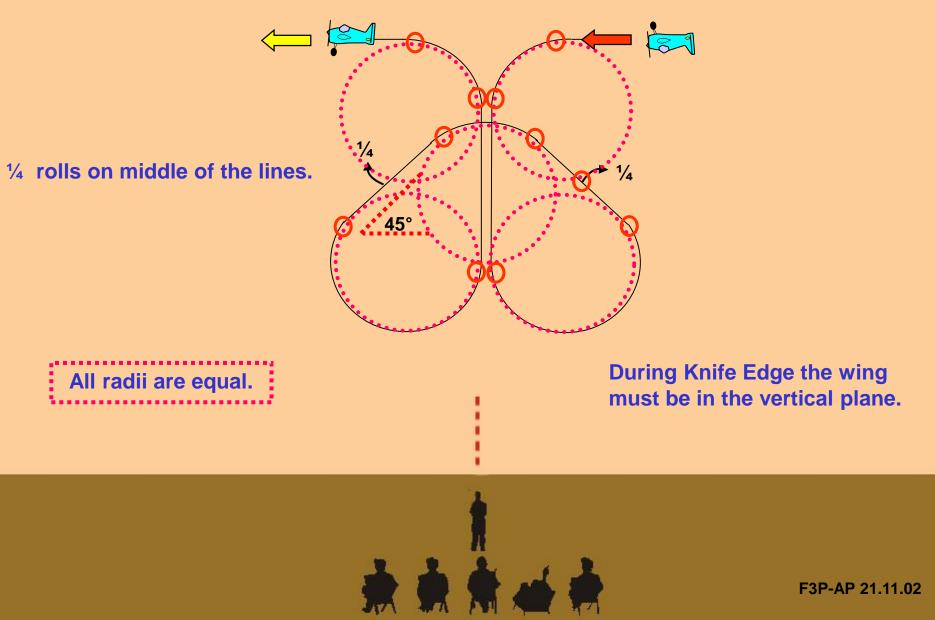
AP-21.11 Double Key from top with ¼ roll, ¼ roll



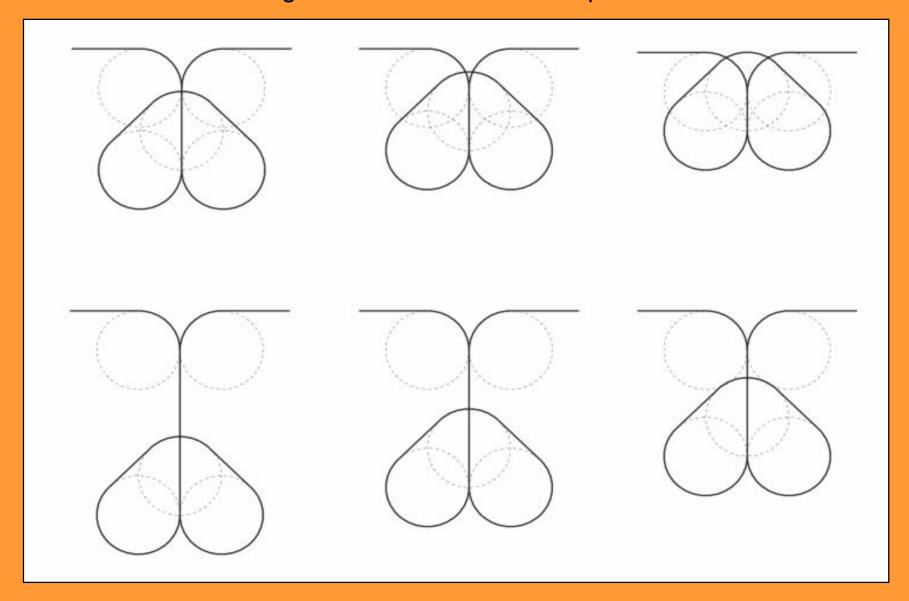
From inverted, pull through a ¼ loop into a vertical center downline pull through a 5/8 loop into a 45 degrees upline, perform a ¼ roll, perform a ¼ knife-edge loop, perform a ¼ roll, push through a 5/8 loop into a vertical center upline, push through a ¼ loop, exit upright



AP-21.11 Double Key from top with ¼ roll, ¼ roll



According to the manoeuvre description the manoeuvre may be flown with with different length of the center vertical up and downlines.



Landing sequence (not judged, not scored)

Forget WHO is flying

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

Forget WHAT is flying

LOOK ONLY AT LINES DESCRIBED

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

Bob Skinner



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