

Annex 5A Description of F3A Manoeuvres

ADVANCED SCHEDULE F3A A-29 (2028-2029)

A-29.01 Forty-five degree upline with roll

From upright, before centre, pull through a $\frac{1}{8}$ loop into a 45 degree upline, perform a roll, push through a $\frac{1}{8}$ loop, exit upright.

A-29.02 Push-Pull-Push Humpty Bump

From upright, push through a $\frac{1}{4}$ loop into a vertical downline, pull through a $\frac{1}{2}$ loop into a vertical upline, push through a $\frac{1}{4}$ loop, exit upright.

A-29.03 Square Loop on Corner from top

From upright, at centre, push through a $\frac{1}{8}$ loop into a 45° downline, push through a $\frac{1}{4}$ loop into a 45° downline, push through a $\frac{1}{4}$ loop into a 45° upline, push through a $\frac{1}{4}$ loop into a 45° upline, push through a $\frac{1}{8}$ loop, exit upright.

A-29.04 Half Square Loop with half roll

From upright, push through a $\frac{1}{4}$ loop into a vertical downline, perform a $\frac{1}{2}$ roll, pull through a $\frac{1}{4}$ loop, exit upright

A-29.05 Knife-Edge flight

From upright, perform a $\frac{1}{4}$ roll into sustained knife-edge flight, perform a $\frac{1}{4}$ roll, exit upright.

A-29.06 Stall Turn with half roll

From upright pull through a $\frac{1}{4}$ loop into a vertical upline, perform a stall turn into a vertical downline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{4}$ loop, exit inverted.

A-29.07 Cuban Eight with roll, roll

From inverted, push through a $\frac{5}{8}$ loop into a 45° downline, perform a roll, pull through a $\frac{3}{4}$ loop into a 45° downline, perform a roll, push through a $\frac{1}{8}$ loop, exit inverted.

A-29.08 Half Square Loop on Corner

From inverted, push through a $\frac{1}{8}$ loop into a 45° upline, push through a $\frac{1}{4}$ loop into a 45° upline, push through a $\frac{1}{8}$ loop, exit upright.

A-29.09 Double Key with half roll, half roll

From upright, push through a $\frac{1}{4}$ loop into a vertical downline, perform a half roll, pull through a $\frac{5}{8}$ loop into a 45° upline, pull through a $\frac{1}{4}$ loop into a 45° downline, pull through a $\frac{5}{8}$ loop into a vertical upline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{4}$ loop, exit upright

A-29.10 Figure 8, half outside loop on top, loop

From upright, push through a $\frac{1}{2}$ loop, immediately pull through a loop, exit inverted.

A-29.11 Four consecutive quarter rolls

From inverted, perform consecutively four $\frac{1}{4}$ rolls, exit inverted

A-29.12 Pushed Half Loop

From inverted, push through a $\frac{1}{2}$ loop, exit upright.

A-29.13 Spin with two turns

From upright, perform a spin with 2 turns, pull through a $\frac{1}{4}$ loop, exit upright.

A-29.14 Top Hat with half roll. Option: Top Hat with quarter roll, quarter roll

From upright, pull through a $\frac{1}{4}$ loop into a vertical upline, pull through a $\frac{1}{4}$ loop, pull through a $\frac{1}{4}$ loop into a vertical downline, perform a $\frac{1}{2}$ roll, pull through a $\frac{1}{4}$ loop, exit upright.

Option: From upright, pull through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{1}{4}$ roll, pull through a $\frac{1}{4}$ loop into a cross box line, pull through a $\frac{1}{4}$ loop into a vertical downline, perform a $\frac{1}{4}$ roll, pull through $\frac{1}{4}$ loop, exit upright.

A-29.15 Knife-Edge Humpty Bump with quarter roll, quarter roll

From upright, at centre, pull through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{1}{4}$ roll, perform a $\frac{1}{2}$ knife edge loop towards the centre into a vertical downline, perform a $\frac{1}{4}$ roll, pull through a $\frac{1}{4}$ loop, exit inverted.

A-29.16 Reverse Shark Fin

From inverted, push through a $\frac{1}{8}$ loop into a 45° upline, pull through a $\frac{5}{8}$ loop into a vertical downline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{4}$ loop, exit inverted.

A-29.17 Pushed Loop with roll on top

From inverted, push through a loop, perform a $\frac{1}{2}$ roll over the top 90° , exit upright.

PRELIMINARY SCHEDULE F3A P-29 (2028-2029)**P-29.01 Forty-five degree upline with snap roll**

From upright, before centre, pull through a $\frac{1}{8}$ loop into a 45° upline, perform a snap roll, push through a $\frac{1}{8}$ loop, exit upright.

P-29.02 Push-Pull-Push Humpty Bump with two consecutive quarter rolls, roll

From upright, push through a $\frac{1}{4}$ loop into a vertical downline, perform consecutively two $\frac{1}{4}$ rolls, pull through a $\frac{1}{2}$ loop into a vertical upline, perform a roll, push through a $\frac{1}{4}$ loop, exit upright.

P-29.03 Square Loop on Corner from top with half roll, half roll, half roll, half roll

From upright, at centre, push through a $\frac{1}{8}$ loop into a 45° downline, perform a $\frac{1}{2}$ roll, pull through a $\frac{1}{4}$ loop into a 45° downline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{4}$ loop into a 45° upline, perform a $\frac{1}{2}$ roll, pull through a $\frac{1}{4}$ loop into a 45° upline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{8}$ loop, exit upright.

P-29.04 Half Square Loop with half roll, two consecutive half rolls in opposite direction

From upright, perform a $\frac{1}{2}$ roll, pull through a $\frac{1}{4}$ loop into a vertical downline, perform consecutively two $\frac{1}{2}$ rolls in opposite direction, pull through a $\frac{1}{4}$ loop, exit upright

P-29.05 Knife-Edge flight with roll

From upright, perform a $\frac{1}{4}$ roll into sustained knife-edge flight, perform a roll into sustained knife-edge flight, perform a $\frac{1}{4}$ roll, exit inverted.

Note: All rolls are in the same direction.

P-29.06 Stall Turn with two consecutive quarter rolls, half roll

From inverted, push through a $\frac{1}{4}$ loop into a vertical upline, perform consecutively two $\frac{1}{4}$ rolls, perform a stall turn into a vertical downline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{4}$ loop, exit inverted.

P-29.07 Cuban Eight with snap roll, roll

From inverted, push through a $\frac{5}{8}$ loop into a 45° downline, perform a snap roll, pull through a $\frac{3}{4}$ loop into a 45° downline, perform a roll, push through a $\frac{1}{8}$ loop, exit inverted.

P-29.08 Half Square Loop on Corner with quarter roll, quarter roll

From inverted, push through a $\frac{1}{8}$ loop into a 45° upline, perform a $\frac{1}{4}$ roll, perform a $\frac{1}{4}$ knife-edge loop, perform a $\frac{1}{4}$ roll, push through a $\frac{1}{8}$ loop, exit upright.

P-29.09 Double Key with half roll, three quarter roll, three quarter roll, half roll

From upright, push through a $\frac{1}{4}$ loop into a vertical downline, perform a half roll, pull through a $\frac{5}{8}$ loop into a 45° upline, perform a $\frac{3}{4}$ roll, perform a $\frac{1}{4}$ knife-edge loop into a 45° downline, perform a $\frac{3}{4}$ roll, pull through a $\frac{5}{8}$ loop into a vertical upline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{4}$ loop, exit upright.

P-29.10 Figure 8, half outside loop on top, loop

From upright, push through a $\frac{1}{2}$ loop, immediately pull through a loop, exit inverted.

P-29.11 Roll Combination with two consecutive one eighth rolls, four consecutive quarter rolls in opposite direction, two consecutive one eighth rolls in opposite direction

From inverted, perform consecutively two $\frac{1}{8}$ rolls, perform consecutively four $\frac{1}{4}$ rolls in opposite direction to the $\frac{1}{8}$ rolls, perform consecutively two $\frac{1}{8}$ rolls in opposite direction to the $\frac{1}{4}$ rolls, exit upright.

P-29.12 Immelman

From upright, pull through a $\frac{1}{2}$ loop, immediately perform a half roll, exit upright.

P-29.13 Spin with two and a quarter turns, quarter roll

From upright, perform a spin with 2 $\frac{1}{4}$ turns, perform a vertical downline, perform a $\frac{1}{4}$ roll, pull through a $\frac{1}{4}$ loop, exit upright.

P-29.14 Top Hat with two consecutive quarter rolls. Option: Top Hat with three quarter roll, quarter roll

From upright, pull through a $\frac{1}{4}$ loop into a vertical upline, pull through a $\frac{1}{4}$ loop, pull through a $\frac{1}{4}$ loop into a vertical downline, perform consecutively two $\frac{1}{4}$ rolls, pull through a $\frac{1}{4}$ loop, exit upright.

Option: From upright, pull through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{3}{4}$ roll, pull through a $\frac{1}{4}$ loop into a cross box line, pull through a $\frac{1}{4}$ loop into a vertical downline, perform a $\frac{1}{4}$ roll, pull through $\frac{1}{4}$ loop, exit upright.

P-29.15 Knife-Edge Humpty Bump with three quarter roll, three quarter roll

From upright, starting at centre, pull through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{3}{4}$ roll, perform a $\frac{1}{2}$ knife edge loop towards the centre into a vertical downline, perform a $\frac{3}{4}$ roll, push through a $\frac{1}{4}$ loop, exit inverted.

P-29.16 Reverse Shark Fin with two consecutive half rolls in opposite direction, two consecutive quarter rolls

From inverted, push through a $\frac{1}{8}$ loop into a 45° upline, perform consecutively two $\frac{1}{2}$ rolls in opposite direction, pull through a $\frac{5}{8}$ loop into a vertical downline, perform consecutively two $\frac{1}{4}$ rolls, push through a $\frac{1}{4}$ loop, exit inverted.

P-29.17 Loop with two half rolls integrated

From inverted, push through a $\frac{1}{4}$ loop with integrated $\frac{1}{4}$ roll, followed by a half knife-edge loop, and a $\frac{1}{4}$ loop with integrated $\frac{1}{4}$ roll, exit upright.

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F-29.01 Golfball with three quarter roll, half roll integrated, three quarter roll

From upright, before centre, pull through a $\frac{1}{8}$ loop into a 45° upline, perform a $\frac{3}{4}$ roll into knife-edge flight, perform a $\frac{3}{4}$ knife-edge loop while integrating a $\frac{1}{2}$ roll into the top 180° , perform a $\frac{3}{4}$ roll, pull through a $\frac{1}{8}$ loop, exit upright.

F-29.02 Figure ET with two half rolls in opposite direction, roll

From upright, pull through a $\frac{1}{4}$ loop, perform consecutively two $\frac{1}{2}$ rolls in opposite direction, pull through a $\frac{5}{8}$ loop into a 45° downline, perform a roll, push through a $\frac{3}{8}$ loop, exit inverted.

F-29.03 Knife-Edge Flight with two snap rolls in opposite direction

From inverted, perform a $\frac{3}{4}$ roll into knife-edge flight, perform two snap rolls opposite (first in same direction as the $\frac{3}{4}$ roll, perform a $\frac{3}{4}$ roll in opposite direction to the first $\frac{3}{4}$ roll, exit inverted.

Note: There must be lines of equal length between the $\frac{3}{4}$ rolls and the snap rolls

F-29.04 Trombone with three quarter roll, roll, half roll opposite

From inverted, push through a $\frac{1}{8}$ loop into a 45° upline, perform a $\frac{3}{4}$ roll, perform a $\frac{1}{2}$ knife-edge loop into a 45° downline, perform a roll, followed by a quarter roll in opposite direction, pull through a $\frac{1}{8}$ loop, exit upright.

F-29.05 Knife- Edge Rolling Circle with two rolls opposite

From upright, before centre, perform a $\frac{1}{4}$ roll into knife-edge flight, perform a $\frac{1}{2}$ circle with integrated roll to the inside, followed by another half circle with integrated roll to the outside, perform a $\frac{1}{4}$ roll, exit upright.

F-29.06 Half Loop with two half rolls opposite integrated

From upright pull through a $\frac{1}{2}$ loop, while integrating two $\frac{1}{2}$ rolls in opposite directions, exit inverted.

F-29.07 Triangle from Top with snap roll, four consecutive quarter rolls, snap roll

From inverted, pull through a $\frac{1}{8}$ loop into a 45° downline, perform a snap roll, pull through a $\frac{5}{8}$ loop, perform consecutively four $\frac{1}{4}$ rolls, pull through a $\frac{5}{8}$ loop into a 45° upline, perform a snap roll, pull through a $\frac{1}{8}$ loop, exit inverted.

F-29.08 Half Square Loop on corner with quarter roll, half roll integrated, quarter roll

From inverted, pull through a $\frac{1}{8}$ loop into a 45° downline, perform a $\frac{1}{4}$ roll into knife-edge flight, perform a $\frac{1}{4}$ knife-edge loop towards the centre, while integrating a $\frac{1}{2}$ roll, perform a $\frac{1}{4}$ roll, exit upright.

F-29.09 Cuban Eight with one and a quarter roll integrated, snap roll, roll integrated, snap roll, quarter roll integrated

From upright, fly past centre, pull through a $\frac{5}{8}$ loop, into a 45° knife-edge downline, while integrating a $1\frac{1}{4}$ roll, perform a snap roll, perform a $\frac{3}{4}$ knife-edge loop, into a 45° knife-edge downline, while integrating a roll in opposite direction to the $1\frac{1}{4}$ roll integrated, perform 1 snap roll, perform a $\frac{1}{8}$ knife-edge loop, while integrating a $\frac{1}{4}$ roll in opposite direction to the roll integrated, exit upright.

F-29.10 Half Square Loop with quarter roll, knife edge loop, quarter roll

From upright pull through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{1}{4}$ roll, perform a knife-edge loop into a vertical upline, perform a $\frac{1}{4}$ roll, pull through a quarter loop, exit inverted.

F-29.11 Figure S from Top with half roll integrated, half roll integrated

From inverted, pull through a $\frac{1}{2}$ loop, while integrating a half roll, immediately pull through another $\frac{1}{2}$ loop while integrating a $\frac{1}{2}$ roll, exit inverted.

Note: Both integrated rolls must be in the same direction.

F-29.12 Half Square Loop with three quarter roll, quarter roll opposite

From inverted, push through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{3}{4}$ roll followed by a $\frac{1}{4}$ roll in opposite direction, pull through a $\frac{1}{4}$ loop, exit inverted.

F-29.13 Inverted Spin two turns, two turns opposite

From inverted, perform a 2 turns spin, perform immediately another 2 turns spin in the opposite direction, perform a vertical downline, push through a $\frac{1}{4}$ loop, exit inverted.

F-29.14 Humpty Bump with half roll, half roll integrated, snap roll. Option: Humpty Bump with two half rolls opposite, half roll integrated, snap roll

From inverted, push through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{1}{2}$ roll, push through a $\frac{1}{2}$ loop into a vertical downline, while integrating a $\frac{1}{2}$ roll, perform a snap roll, pull through a $\frac{1}{4}$ loop, exit upright.

Option: From inverted, push through a $\frac{1}{4}$ loop into a vertical upline, perform consecutively two half rolls in opposite direction, perform a $\frac{1}{2}$ knife-edge loop into a vertical downline, while integrating a $\frac{1}{2}$ roll, perform a snap roll, pull through a $\frac{1}{4}$ loop, exit upright.

F-29.15 Roll Combination with four consecutive one eighth rolls, half roll opposite, four consecutive one eighth rolls opposite

From upright, perform consecutively four $\frac{1}{8}$ rolls immediately followed by a $\frac{1}{2}$ roll in opposite direction, immediately followed by four consecutive $\frac{1}{8}$ rolls in opposite direction, exit inverted.

F-29.16 Knife-Edge Shark Fin with three quarter roll, three eighth knife edge loop, three consecutive $\frac{1}{4}$ rolls

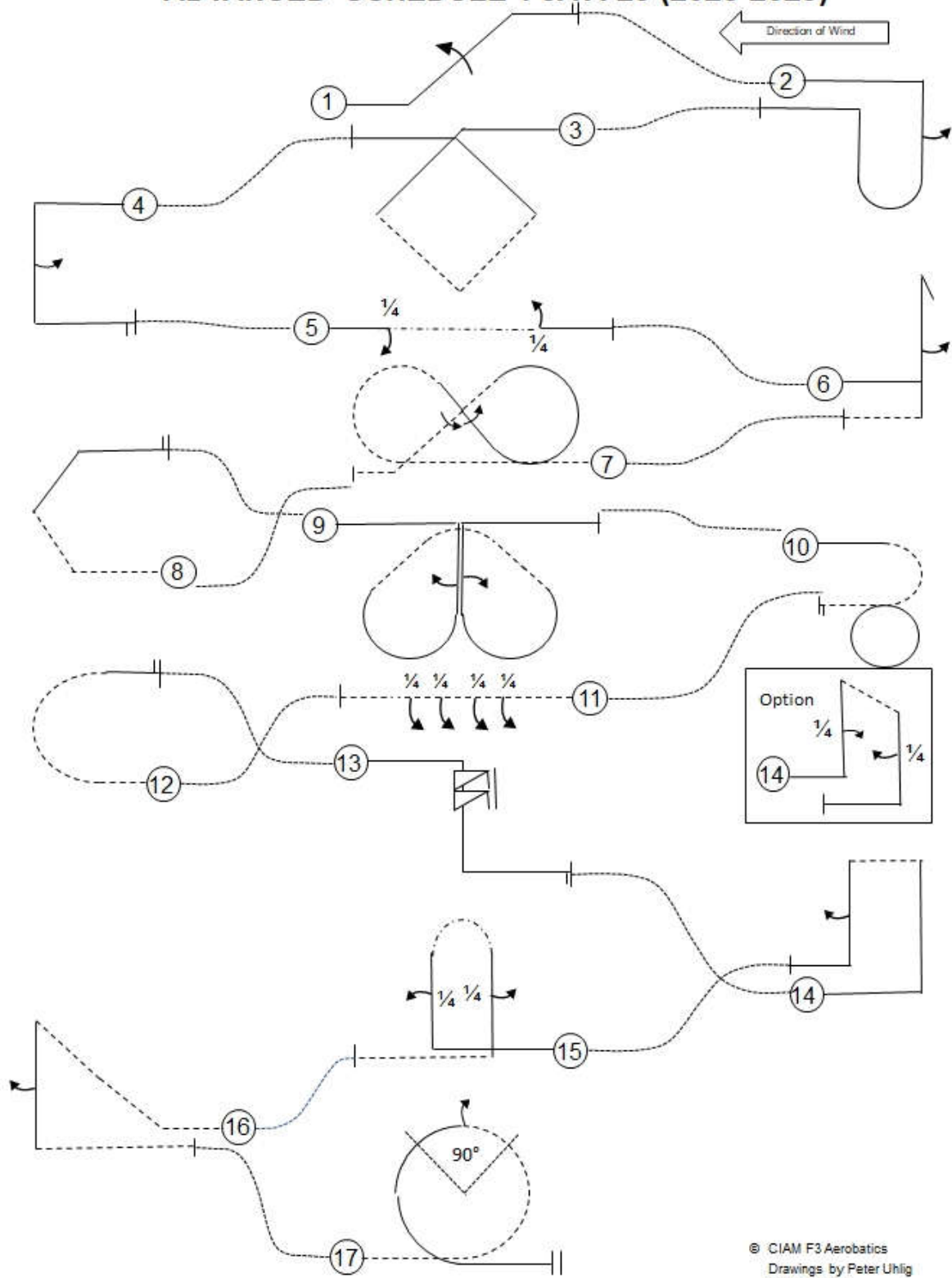
From inverted, push through a $\frac{1}{4}$ loop into a vertical upline, perform a $\frac{3}{4}$ roll, perform a $\frac{3}{8}$ knife-edge loop towards the centre into a 45° downline, perform consecutively three $\frac{1}{4}$ rolls, pull through a $\frac{1}{8}$ loop, exit upright.

F-29.17 Stall Turn with half roll integrated, three quarter roll, three quarter snap roll, half roll integrated

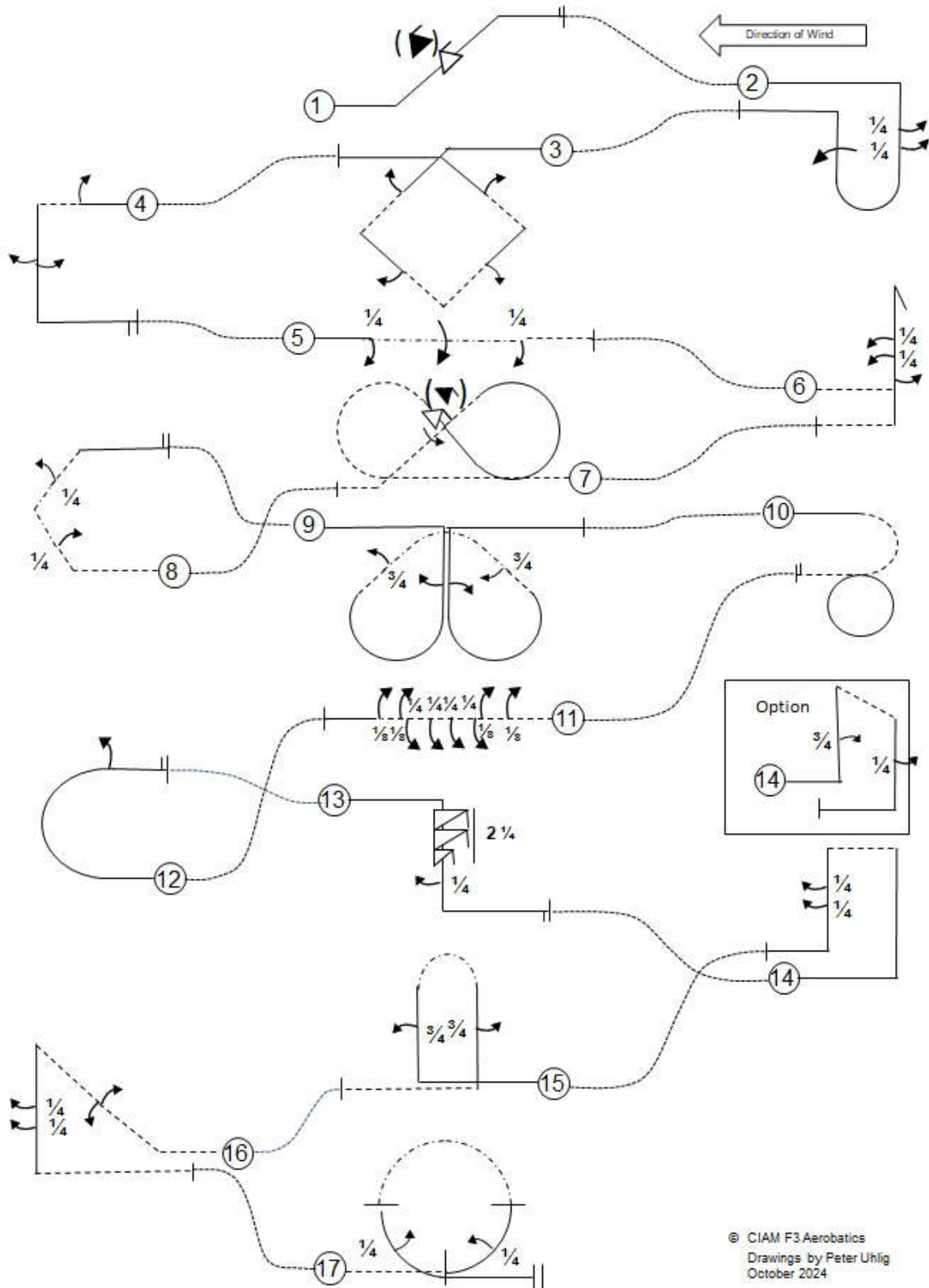
From upright, pull through a $\frac{1}{4}$ loop into a vertical upline, while integrating a half roll, perform a $\frac{3}{4}$ roll, perform a stall turn into a vertical downline, perform a $\frac{3}{4}$ snap roll, push through a $\frac{1}{4}$ loop while integrating a $\frac{1}{2}$ roll, exit upright.

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