ANNEXES F3C

5D.1 General – Rule change — F3CN Subcommittee

The manoeuvres are displayed in pictorial form in Figures 5D-P**,** ~~and~~ 5D-SF~~/F~~ **and 5D-F** for the case where the wind direction is left to right. The following descriptions apply to all manoeuvres and if not performed properly must result in downgrades. Points will also be subtracted if a manoeuvre is not performed as described. The starting/ending altitude for the hovering manoeuvres is 2m above the helipad. If a manoeuvre is unrecognisable it must be severely downgraded. If pirouettes are performed in the wrong direction, the score shall be zero (0) points. Ascents from, and descents to, the helipad must be vertical. Landings must be smooth and centred on the helipad. During the hovering manoeuvres all stops must be of 2 seconds minimum duration (unless specified otherwise). Circular and linear hovering segments must be performed at a constant speed. Every pirouette must be performed at a constant turning rate. The hovering manoeuvres must be started with the nose of the model aircraft (MA) facing left or right and must be flown as a unit (the starting heading must be same for each hovering manoeuvre). The competitor must stand in the 2m diameter circle marked "P" in Figure 5.4.A during all manoeuvres. All aerobatic manoeuvres must start and end in the direction indicated with a straight and level flight line of 10m minimum length. Entry and exit must be at the same altitude and heading. Loops or parts of a loop must be round and have the same diameter. Consecutive loops must be in the same location and plane. Rolls must be performed at a constant roll rate. Consecutive rolls must have the same roll rate and must be at the same altitude and heading. During all aerobatics manoeuvres the competitor must maintain his MA above a minimum altitude of 10 m. Aerobatic manoeuvres must be centred within the 120º horizontal field of view and must be symmetrical about the centre line. Aerobatic manoeuvres flown at a distance greater than 100m from the judges' line will be downgraded. In case of a dispute the manoeuvre text takes precedence over Figures 5D-P **,** ~~and~~ 5D-SF~~/F~~ **and 5D-F**.

Note: When the word "centred" is used, it means that the MA crosses an imaginary plane that extends from a line drawn vertically upward, from the centre judge out through the helipad. This refers to ~~both~~ **all** Schedules P**,** ~~and~~ SF~~/~~ **and** F.

Scoring criteria for landing; See ANNEX 5E paragraph 5E.6.11.

Reason:

Due to the introduction of the new Final Schedule, this rule change is necessary.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	11	1	0

5D.2 Schedule P – P9: 180° Autorotation – Clarification — F3CN Subcommittee

P9: 180° Autorotation (DU) **K=1.0**

MA flies straight and level for a minimum of 10 m at a minimum altitude of 20 m. ~~When MA crosses~~ **Before crossing** an imaginary plane that extends vertically upward from a line drawn from the center judge out through the helipad, MA **turns the engine** ~~must be in the autorotation state, the engine must be~~ off (or at idle) **and continues to fly straight and leveled.** ~~at this point and the~~ When crossing this line MA must **start the autorotation and descend.** ~~be descending.~~ **It is also at this point that** ~~T~~the 180° turn must start ~~at this point~~ and the turning and descending rate must be constant ~~from this point~~ to a point just before

touchdown on the helipad. The flight path of the MA must appear as a semi-circle when viewed from above, starting at the vertical plane and ending at a line drawn from the center judge through the helipad. The MA's flight path must never be parallel to the ground or judge's line.

Scoring criteria for landing: See ANNEX 5E Paragraph 5E.6.11.

Reason:

Because of misunderstandings in the manoeuvre description a clarification is necessary.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	12	0	0

5D.3 Schedule SF – Rule Change — F3CN Subcommittee

5D.3 SCHEDULE SF~~/F~~

SF1: Tulip with 1/2 Pirouettes (UU) K=1.5

MA climbs vertically 2 m from the helipad and hovers for at least two seconds, ascends backwards in a downward curved quarter circle with a radius of 5 m while simultaneously performing a 180° nose-to-pilot pirouette until it reaches the flag 1 (2) at a height of 7 m then hovers for at least 2 seconds. MA descends backwards in a downward arcing semi-circle of 2.5m radius while simultaneously performing a 180° nose-to-pilot pirouette until it reaches the centreline at a height of 7 m then hovers for at least 2 seconds. MA then descends forward in a downward arcing semi-circle of 2.5 m radius while simultaneously performing a 180° nose-to-pilot pirouette until it reaches the flag 2 (1) at a height of 7 m then hovers for at least 2 seconds. MA then descends forward in a downward curved quarter circle with a radius of 5 m while simultaneously performing a 180° nose-to-pilot pirouette then stops over the helipad at 2 m for 2 seconds, descends and lands into the helipad.

SF2: Laid Eight with Pirouettes (UU) K=1.5

MA takes off vertically from the helipad and ascends to 4.5 m while performing simultaneously a 360° pirouette in any direction, then hovers there for at least two seconds. MA flies backwards and descends describing a vertical circle with a radius of 2.5 m while simultaneously performing a 360° pirouette in any direction.

MA flies forward and descends describing a vertical circle with a radius of 2.5 m while simultaneously performing a 360° pirouette in the opposite direction, stops and hovers for at least two seconds over the helipad. MA descends and lands into the helipad while simultaneously performing a 360° pirouette in any direction.

Note: The change of direction of the pirouettes must occur smoothly on the center line.

SF3: Candle with 360° Tail Turn and 180° pushed Flip (UU) K=1.0

MA flies straight and level for a minimum of 10 m and pulls up into vertical ascent on center line by doing a quarter loop. MA then performs a 360° tail turn, descends minimum 2 m vertically backwards and performs a 180° pushed flip while descending vertically. MA descends minimum 2 m vertically forward, pulls with a quarter loop into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

Note 1: The quarter loops at the entrance and the exit of the figure must have the same radius.

Note 2: The vertical lines before and after the 180° flip must be of equal length.

SF4: Inverted Cuban Eight with half Rolls (DD) K=1.0

MA flies straight and level for at least 10 m then executes a half roll in any direction at least 10 m before entering a 5/8 outside loop. When MA is descending at 45° and upright it executes a half roll in any direction at the centreline into inverted flight followed by a 3/4 outside loop. When MA is again descending at 45° and upright it executes another half roll in any direction at the centreline into inverted flight, continuing through the first partial loop in this attitude. MA then flies a minimum of 10 m straight and level, executes a half roll in either direction back to upward flight continuing straight and level for at least 10 m.

SF5: Standing Triangle (UU) K=1.0

MA flies straight and level for at least 10 m then executes a half roll in any direction followed by an inverted flight of a minimum of 10 m then ascends at the centreline by completing a 1/8 pushed loop to an angle of 45°. MA continues with a straight line followed by a pushed 3/8 loop to upright level flight. After a short straight flight a level centred full horizontal roll in any direction should be completed followed by another short straight flight, another pushed 3/8 loop into a straight line descent at an angle of 45°, then completes a 1/8 pushed loop finishing on the centreline.
MA continues inverted flight for a minimum of 10 m followed by a half roll in any direction finishing upright into straight and level flight of at least 10 m at the same altitude as manoeuvre entry.

Note 1: Before and after the centred roll the MA fly a straight line, these lines must be of equal length.

Note 2: The 1/8 loops must be executed such that the 45° ascend as well as the 45° descend starts and ends exactly on the centreline.

SF6: Three opposite Rolls (DD) K=1.0

MA flies straight and level for a minimum of 10 m, performs a roll in any direction followed by a roll in opposite direction followed by a roll in the same direction as the first roll. MA flies straight and level for a minimum of 10 m.

Note 1: During the second roll the MA must be in inverted flight when it crosses the center line.

Note 2: The rolls must be executed one immediately after the other, straight flights between the rolls will be downgraded by one to two points.

Note 3: The elapsed time from the beginning of the first to the end of the third roll must be at least 4 seconds.

SF7: Inverted Umbrella with half Rolls (UU) K=1.0

MA flies straight and level for a minimum of 10 m and pulls up into a vertical ascent on center line. After a nose up stop MA performs immediately in a backward vertically flight a half roll in any direction followed by a half backward loop. After MA stops it performs a centered ‘U’. After a nose up stop MA performs a half backward loop followed by a backwards vertically ascent. After a nose down stop MA performs immediately in a forward vertically flight a half roll in any direction followed by a vertical descent. MA pulls with a quarter looping into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

Note 1: The quarter loops at the entrance and the exit of the figure and the half loop of the centered ‘U’ must have the same radius.

Note 2: The two half backward loops must be of equal size and must have half radius than the half loop of the centered ‘U’.

Note 3: The bottom of the ‘U’ must be at the same altitude as when entering the figure.

Note 4: The two rolls must be performed at the same altitude.

Note 5: The 2 half rolls must be higher than the 2 outer stall positions.

SF8: Autorotation with Flip and two 90° Turns (DU) **K=1.0**

MA flies straight and level flight for a minimum of 10 m performs a pulled 360° flip in horizontal movement, flies horizontal straight and level for a maximum of 10 m and turns off the engine (or at idle) during this straight flight period, just before reaching the center line. MA executes 3 constantly descending sides with two 90° turns in the direction of the pilot and lands against the wind into the helipad.

Note 1: The descent rate must be constant to a point just before touchdown on the helipad.

Note 2: Parts of the second side, the second 90° turn and the beginning of the third side may be flown out of the 60° flight window.

Scoring criteria for landing: See ANNEX 5E Paragraph 5E.6.11.

Reason:

Due to the introduction of the new Final Schedule, this rule change is necessary.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	11	1	0

5D.4 Schedule F – Rule Change — F3CN Subcommittee

5D.4 SCHEDULE F

F1: Tulip with 1/2 Pirouettes (UU) **K=1.5**

MA climbs vertically 2 m from the helipad and hovers for at least two seconds, ascends backwards in a downward curved quarter circle with a radius of 5 m while simultaneously performing a 180° nose-to-pilot pirouette until it reaches the flag 1 (2) at a height of 7 m then hovers for at least 2 seconds. MA descends backwards in a downward arcing semi-circle of 2.5m radius while simultaneously performing a 180° nose-to-pilot pirouette until it reaches the centreline at a height of 7 m then hovers for at least 2 seconds. MA then descends forward in a downward arcing semi-circle of 2.5 m radius while simultaneously performing a 180° nose-to-pilot pirouette until it reaches the flag 2 (1) at a height of 7 m then hovers for at least 2 seconds. MA then descends forward in a downward curved quarter circle with a radius of 5 m while simultaneously performing a 180° nose-to-pilot pirouette then stops over the helipad at 2 m for 2 seconds, descends and lands into the helipad.

F2: 3D Triangle with Pirouettes (UU) **K=1.5**

MA takes off vertically from the helipad and ascends to 2m while doing a 90° nose-in pirouette and hovers for 2 seconds. MA flies backwards in a straight line to flag 3 and hovers for 2 seconds. MA does a 90° nose-in circle in any direction with a radius of 5m and stops for 2 seconds over the flag 1 (2). MA climbs on a 45° line to 4.5m while doing a 90° nose-in pirouette and stops for 2 seconds. MA goes on climbing sidewards on a 45° line to 7m and stops for 2 seconds over the helipad. MA performs a 360° pirouette in any direction of at least 3 seconds and stops for 2 seconds. MA descends sidewards on a 45° line to 4.5m and stops for 2 seconds. MA goes on descending on a 45° line to 2m while doing a 90° pirouette in a way that the nose points to the helipad and stops for 2 seconds over the flag 2 (1). MA performs a 90° nose-in circle with a radius of 5m and stops for 2 seconds over flag 3. MA flies forward in a straight line to the center of the helipad and hovers for 2 seconds. MA descends while doing a 90° pirouette and lands into the helipad with nose pointing in the same direction as at the beginning of the manoeuvre.

F3: M with 360° Pirouettes (UU) K=1.0

MA flies straight and level for 10 m minimum and then enters a quarter loop leading to a straight vertical line. At the end of the ascent MA performs a 90° pushed flip to a recognizable stationary hover. MA performs a 360° pirouette in either direction of at least 3 seconds followed by a recognizable stationary hover. MA performs a pushed 90° flip into a straight vertical line. After at least 5m in a straight line MA performs a half roll in either direction followed by another straight line of a least 5m. MA performs a half centered outside loop and flies up in vertical line. At the end of the ascent MA performs a 90° pulled flip to a recognizable, stationary inverted hover at the same height as before. MA then executes another 360° pirouette in either direction of at least 3 seconds followed by a recognizable stationary hover. This is followed by a pulled 90° flip into vertical straight descent of at least 5m. Then MA performs a half roll in either direction followed by a straight line of a least 5m. MA performs a quarter loop to the same altitude and heading as the at start. Manoeuvre is completed by flying straight and level for 10 m minimum.

F4: Inverted Cuban Eight with half Rolls (DD) K=1.0

MA flies straight and level for at least 10 m then executes a half roll in any direction at least 10 m before entering a 5/8 outside loop. When MA is descending at 45° and upright it executes a half roll in any direction at the centreline into inverted flight followed by a 3/4 outside loop. When MA is again descending at 45° and upright it executes another half roll in any direction at the centreline into inverted flight, continuing through the first partial loop in this attitude. MA then flies a minimum of 10 m straight and level, executes a half roll in either direction back to upward flight continuing straight and level for at least 10 m.

F5: Double Candle with Flips and Rolls (UU) K=1.0

MA flies straight and level for 10 m minimum and performs a pulled 1/4 loop at the centerline, flies vertically upwards and performs a 180° travelling pushed flip and climbs backwards a little further until MA comes to a standstill. MA flies vertically downwards and performs a full roll in any direction followed by a half centered outside loop, flies vertically upwards and performs a 180° travelling pushed flip and climbs backwards a little further until MA comes to a standstill. MA flies vertically downwards performs a full roll in any direction followed by a quarter loop and flies horizontally straight ahead from the centerline at least 10 meters.

Note 1: Entry and exit must be flown at the same height.

Note 2: The flips must be flown at the same height.

Note 3: The vertical straight sections before and after the flips must be of the same length.

F6: Three opposite Rolls (DD) K=1.0

MA flies straight and level for a minimum of 10 m, performs a roll in any direction followed by a roll in opposite direction followed by a roll in the same direction as the first roll. MA flies straight and level for a minimum of 10 m.

Note 1: During the second roll the MA must be in inverted flight when it crosses the center line.

Note 2: The rolls must be executed one immediately after the other, straight flights between the rolls will be downgraded by one to two points.

Note 3: The elapsed time from the beginning of the first to the end of the third roll must be at least 4 seconds.

F7: Inverted Umbrella with half Rolls (UU) K=1.0

MA flies straight and level for a minimum of 10 m and pulls up into a vertical ascent on center line. After a nose up stop MA performs immediately in a backward vertically flight a half roll in any direction followed by a half backward loop. After MA stops it performs a centered 'U'. After a nose up stop MA performs a half backward loop followed by a backwards vertically ascent. After a nose down stop MA performs immediately in a forward vertically flight a half roll in any direction followed by a vertical descent. MA pulls with a quarter looping into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

Note 1: The quarter loops at the entrance and the exit of the figure and the half loop of the centered 'U' must have the same radius.

Note 2: The two half backward loops must be of equal size and must have half radius than the half loop of the centered 'U'.

Note 3: The bottom of the 'U' must be at the same altitude as when entering the figure.

Note 4: The two rolls must be performed at the same altitude.

Note 5: The 2 half rolls must be higher than the 2 outer stall positions.

F8: Autorotation with Flip and two 90° Turns (DU)..... K=1.0

MA flies straight and level flight for a minimum of 10 m performs a pulled 360° flip in horizontal movement, flies horizontal straight and level for a maximum of 10 m and turns off the engine (or at idle) during this straight flight period, just before reaching the center line. MA executes 3 constantly descending sides with two 90° turns in the direction of the pilot and lands against the wind into the helipad.

Note 1: The descent rate must be constant to a point just before touchdown on the helipad.

Note 2: Parts of the second side, the second 90° turn and the beginning of the third side may be flown out of the 60° flight window.

Scoring criteria for landing: See ANNEX 5E Paragraph 5E.6.11.

Reason:

A new, more difficult final schedule is necessary to achieve a larger spread in the evaluation of the finalists.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	11	1	0

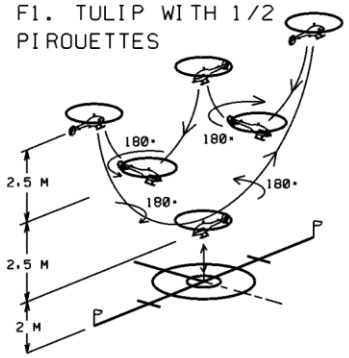
5D.F F3C Manoeuvre Schedule F – Rule Change — F3CN Subcommittee

FIGURE 5D-F: F3C MANOEUVRE SCHEDULE F

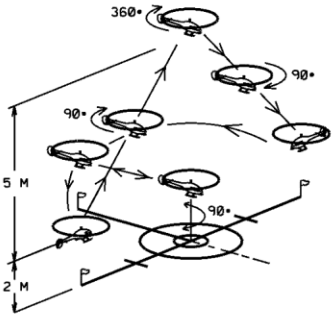
Reason:

A new, more difficult final schedule is necessary to achieve a larger spread in the evaluation of the finalists.

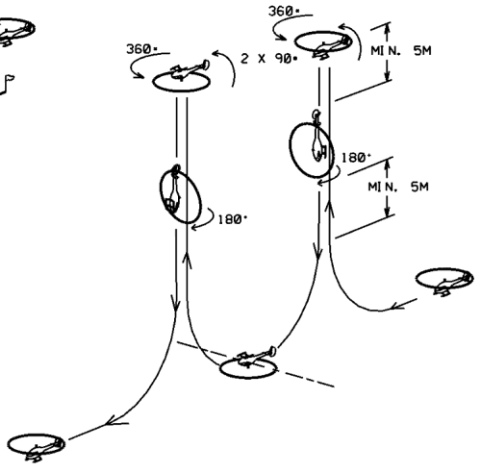
F1. TULIP WITH 1/2 PIROUETTES



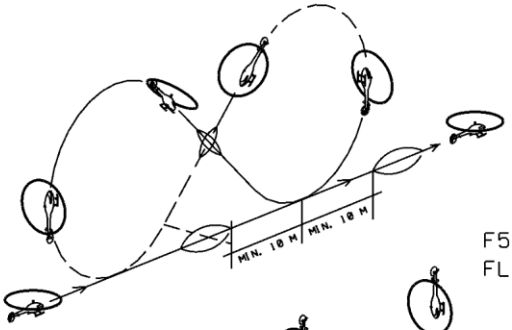
F2. 3D TRIANGLE WITH PIROUETTES



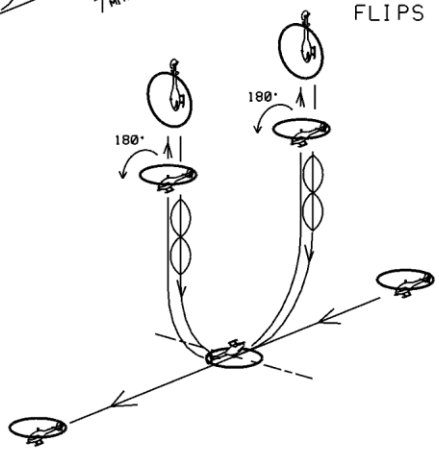
F3. M WITH 360° PIROUETTES



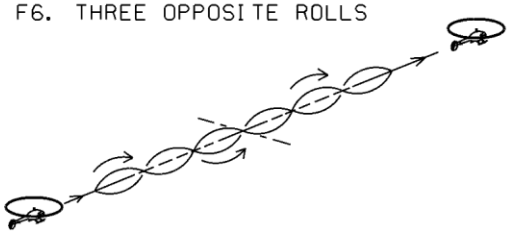
F4. INVERTED CUBAN EIGHT WITH HALF ROLLS



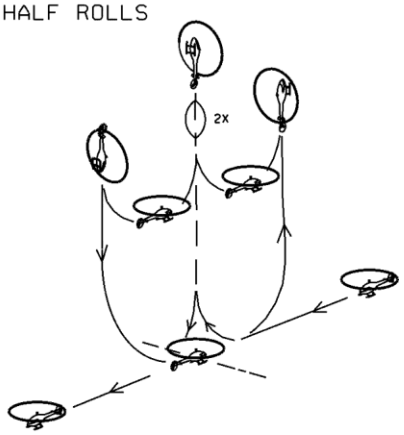
F5. DOUBLE CANDLE WITH FLIPS AND ROLLS



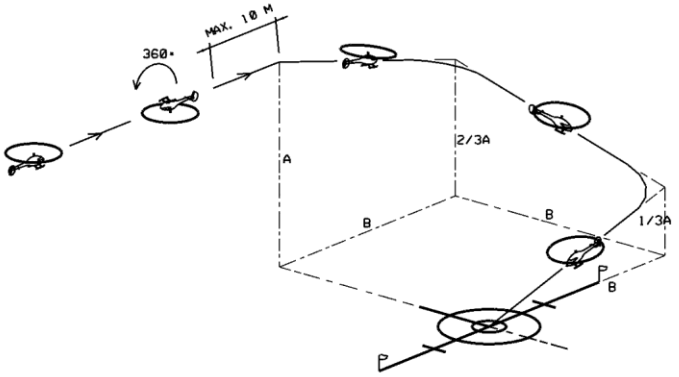
F6. THREE OPPOSITE ROLLS



F7. INVERTED UMBRELLA WITH HALF ROLLS



F8. AUTOROTATION WITH FLIP AND TWO 90° TURNS

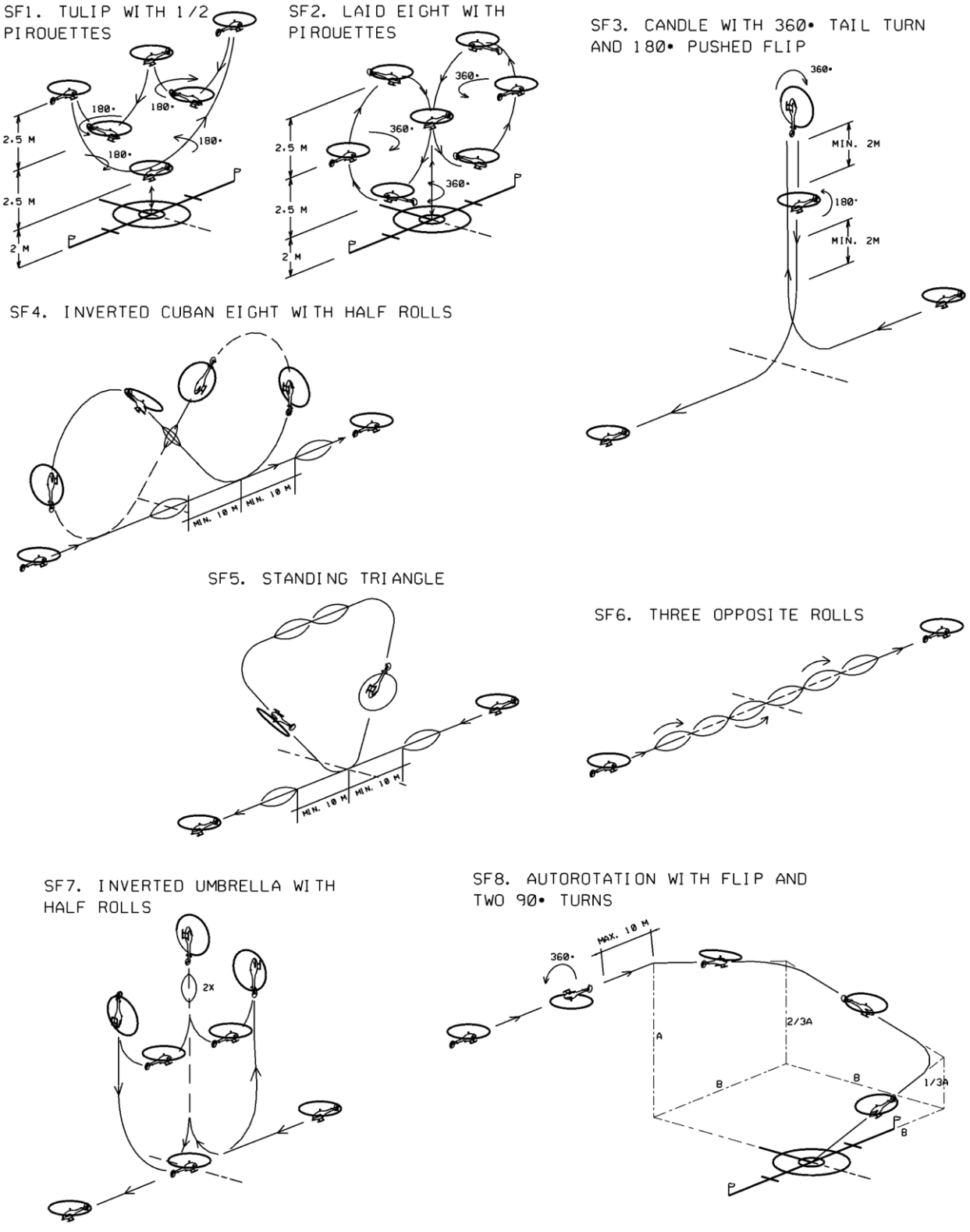


S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	11	1	0

FIGURE 5D-SF/~~F~~: F3C MANOEUVRE SCHEDULE SF/~~F~~

Reason:

Due to the introduction of the new Final Schedule, this rule change is necessary.



S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	11	1	0

ANNEX 5D F3C Manoeuvre Descriptions and Diagrams – Rule Change F3CN Subcommittee

The manoeuvre schedules are listed below with the starting and ending direction (UU = Upwind - Upwind; DD = Downwind - Downwind; DU = Downwind - Upwind; UD = Upwind - Downwind) of each manoeuvre, relative to the wind, as indicated. The competitor has 9 minutes to complete the P schedule and 8**:30** minutes to complete the SF and the F schedule. Schedule P will be flown for the preliminary rounds 1 through 4. Schedule SF~~/F~~ will be flown for the semi final ~~and final~~ rounds **1 and 2**. **Schedule F will be flown for the final rounds 1 and 2**.

SCHEDULE P

P1. PIE…..(UU)
P2. DOUBLE SWALLOW TAIL….(UU)
(FLY BY)
P3. DOUBLE CANDLE WITH DESCENDING FLIP .....(DD)
P4. LOOP WITH 540° TAIL TURNS.....(UU)
P5. UX WITH PUSHED FLIPS… .....(DD)
P6. TWO LOOPS….....(UU)
P7. OPPOSITE HALF AND FULL INVERTED ROLL.....(DD)
P8. INVERTED UMBRELLA… .....(UU)
(FLY BY)
P9. 180° AUTOROTATION ..... (DU)

SCHEDULE SF~~/F~~

SF1. TULIP WITH ½ PIROUETTES. .....(UU)
SF2. LAID EIGHT WITH PIROUETTES. ..... (UU)
(FLY BY)
SF3. CANDLE WITH 360° TAIL TURN AND 180° PUSHED FLIP…(UU)
SF4. INVERTED CUBAN EIGHT WITH HALF ROLLS….....(DD)
SF5. STANDING TRIANGLE. .....(UU)
SF6. THREE OPPOSITE ROLLS. .....(DD)
SF7. INVERTED UMBRELLA WITH HALF ROLLS.....(UU)
(FLY BY)
SF8. AUTOROTATION WITH FLIP AND TWO 90° TURNS.....(DU)

SCHEDULE F

F1. TULIP WITH ½ PIROUETTES......**(UU)**
F2. 3D TRIANGLE WITH PIROUETTES......**(UU)**
(FLY BY)

F3. M WITH 360° PIROUETTES… ..... **(UU)**

F4. INVERTED CUBAN EIGHT WITH HALF ROLLS… ..... **(DD)**

F5. DOUBLE CANDLE WITH FLIPS AND ROLLS. ..... **(UU)**

F6. THREE OPPOSITE ROLLS. ..... **(DD)**

F7. INVERTED UMBRELLA WITH HALF ROLLS ..... **(UU)**

(FLY BY)

F8. AUTOROTATION WITH FLIP AND TWO 90° TURNS …… (DU)

Reason:

The flight time for the F schedule, which was too short, had to be extended because the permitted flight time was often exceeded. And a new, more difficult final schedule is necessary to achieve a larger spread in the evaluation of the finalists.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 12	11	1	0

ANNEXES F3N

5G.8 CRITERIA FOR JUDGING FREESTYLE AND MUSIC FREESTYLE – Clarification F3CN Subcommittee

CRITERIA FOR JUDGING FREESTYLE FLIGHT AND MUSIC FREESTYLE

For freestyle and music freestyle flights the entire flights will be judged according to the table below:

Criterion	Max Points Freestyle	Max Points Music Freestyle
Difficulty	20 k=3	20 k=2
Harmony	20 k=1	20 k=2.5
Creativity	20 k=1	20 k=2.5
Precision	20 k=3	20 k=2
Safe presentation	20 k=1	20 k=1

For freestyle and music freestyle flights the judges can give maximum 20 points to all criteria. The valence of each criterion is regulated by k-factors.

Scoring in all the categories mentioned differs from the Set Manoeuvres where the pilot is downgraded by errors starting at maximum points.
In these categories the score is built up from Zero points to a maximum of 20 points at the end of the flight. ~~The scores are given after the flight for all five criteria.~~ It is important, that the scores for each criterion reflect the entire flight, not only some details of the flight.

Reason:

There is a need for a more precise description of the evaluation criterion.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 5	5	0	0

5G.8.1 Difficulty – Clarification F3CN Subcommittee

DIFFICULTY

This criterion evaluates the level of difficulty of the freestyle flight and music freestyle flight. It is important, that the entire flight is to be judged, not only some highlights~~. So~~ **, so that** the score reflects the average level of difficulty. The K-factors of the set manoeuvres may give some reference values for the difficulty, ~~but during the calibration flights and by watching practice flights~~ **however** the judge should ~~get~~ **have** a clear impression of the range of difficulties of possible manoeuvres. T**he published table in 5G 8.6 should be used consistently as a reference for overall scores in this criteria.**

Reason:

There is a need for a more precise description of the evaluation criterion.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 5	5	0	0

5G.8.2 Harmony – Clarification — F3CN Subcommittee

HARMONY

The combination of the manoeuvres, smooth or flowing transitions ~~between them~~, **size and dynamic movement in relation of the model aircraft to the presentation area** are the main factors for this criterion. ~~Also the manoeuvres size and dynamic in relation to the model aircrafts performance is of influence.~~ The pace ~~is~~ **should** not be of influence here, harmony can be well demonstrated in dynamic ~~as~~ **and** in gentle sequences. **Transitions to a new manoeuvre should be started only after full completion of the previous manoeuvre, and not in a way which makes the previous manoeuvre appear fragmented.**

~~In Music flights also the harmony between the music and the presentation comes to influence here. The transformation of musical accents into the performance is of great importance here.~~

Harmony refers to a pleasing combination or arrangement of different elements or parts that work together to create a sense of unity, balance, compatibility and synchronization. In the music round specifically, harmony refers to the combination of different tones or chords that complement and enhance each other, creating a greater sense of compatibility and synchronization. Changes in music style and/or speed should be reflected in a corresponding change in flying style, thereby visualizing the changes in the audio. MA motion that follows the audio as played or sung with the main tune will lead to a higher score.

Reason:

There is a need for a more precise description of the evaluation criterion.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 5	5	0	0

5G.8.3 Creativity – Clarification — F3CN Subcommittee

CREATIVITY

Creativity is a characteristic of a flight in which the ability to produce or use original and unusual ideas is shown. New combinations or new manoeuvres ~~at all~~ **seen** will lead to high**er** scores ~~here~~. ~~Also dynamic and diversified sequences are positive. There also should be a variety of different tempi in the presentation.~~ Sequences without manoeuvres or with **many** repetitions will lead to downgrades.

An excessive use of same pirouetting rate will also lead to downgrades. Flights should include diversity in pirouetting rates for different parts of the flight. **In Music flights the transformation of musical accents into the performance along with dynamic and diversified sequences are positive should be rewarded.**

Reason:

There is a need for a more precise description of the evaluation criterion.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 5	5	0	0

5G.8.4 Precision – Clarification — F3CN Subcommittee

PRECISION

Precision and recognition of manoeuvres and sequences are evaluated here. The criteria cannot be as strict as for the set manoeuvres as they have to be met for an entire flight, but the principles ~~stay~~ **remain** the same.
Judges will be rewarding the accuracy and attention to detail of the routine placed symmetrically within the flight area.

Reason:

There is a need for a more precise description of the evaluation criterion.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 5	5	0	0

5G.8.5 Safe Presentation – Clarification — F3CN Subcommittee

SAFE PRESENTATION

In addition to the safety rules during the flight(s) (5.11.10), the impression of the presentation related to safety is the guide here. If a pilot does not exceed the limit of his skills or flies unsafe in any way (e.g. too close to himself) a high score can be given here. Flying low (within the rules) by itself is not a reason for downgrade.**, however unnecessary risk or flying a segment of a routine clearly deviating below the other segments may result in a downgrade for safety.**
Risky manoeuvres must not lead to higher scores for difficulty, but result in a downgrade for safety.

Reason:

There is a need for a more precise description of the evaluation criterion.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 5	5	0	0

5G.8.6 Evaluation of the level of difficulty for freestyle schedule – Rule Change F3CN Subcommittee

The following table gives reference values for the estimation of the level of difficulty for both schedules, ~~unlimited~~ **freestyle** and music freestyle.

Aerobatic Manoeuvres in Basic Orientations	
3	Examples: Immelmann, short straight passages, loop, loop with full pirouette on top, roll, turn, 540° turn, pirouettes
5	Examples: ½ Cuban eight, long passages, nose-in circle, flips, autorotation
6	Examples: inverted hovering on eyelevel, flip sideward, Cuban eight, flips with hovering stops
6-10	Examples: Horizontal eight, loop sidewards, turn with hesitations and/or changes of turning direction, rolling stall turn, autorotation with 180 degree turn, death spiral, knife edge pirouette, speed circle, stationary tictoc, funnel, 4-point roll, multi-point tictoc, Snake
Aerobatic Manoeuvres in Several Orientations	
10-15**4**	Aerobatic manoeuvres that demonstrate several orientations like inverted, sideways, backwards etc. Examples: Backward Inverted Cuban eight, skids in and out knife edge manoeuvres, snake parallel to flight line and to centerline, different kinds of funnels like waltz
Aerobatic Manoeuvres including Piros, Rolls and Flips Etc	
13-18**7**	Aerobatic manoeuvres flown in a way where in addition to the CG movement of the main manoeuvre, the model is continuously performing rolls, piros, flips, tictocs or similar. In order to get a high score, many orientations must be shown. Examples: Pirouetting Globe, Chaos, Rolling Globe, Rolling circles, Pirouetting funnels
Aerobatic Manoeuvres including Reversals and Transformations	
17**6**-20	Aerobatic manoeuvres flown in a way, where piros, rolls, tictocs or other secondary manoeuvres are included/integrated and reversed in an equal and balanced way. Examples: Rolling globe with roll reversals, horizontal circle with continues flips/rolls so that tail boom is always parallel to centerline, Reversing chaos In order to score near maximum, many orientation changes must be displayed, and flight must include many clearly defined manoeuvres.

Reason:

There is a need to update the table based on the experiences of previous years.

S/C Voting	YES	NO	ABSTAIN
Overall votes cast: 4	4	0	0