## ADVANCED SCHEDULE AA-21 (2020-2021)



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

From upright perform a $1 / 4$ roll in the center, perform a $5 / 8$ knife edge loop into a 45 degree downline, perform a $1 / 2$ roll, perform a $3 / 4$ knife edge loop into a 45 degree downline, perform a $1 / 4$ roll, push through a $1 / 8$ loop, exit inverted.

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

From inverted, push through a $1 / 4$ loop into a vertical upline, perform a $1 / 4$ roll, perform a stall turn into a vertical downline, push through a $1 / 4$ loop into a horizontal line, perform consecutively two $1 / 4$ rolls, pull through a $1 / 4$ loop into a vertical upline, perform a $1 / 4$ roll perform a stall turn into a vertical downline, push through a quarter loop, exit inverted.

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 $1 / 2$ roll to the inside, exit inverted.

## 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 $1 / 2$ roll, push through a $5 / 8$ loop while integrating a $1 / 2$ roll into the last 180 degrees of the $5 / 8$ loop, exit upright.

## 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 $1 / 4$ loop into a vertical upline while integrating a $1 / 4$ roll, perform a $3 / 4$ torque roll, perform a $1 / 4$ torque roll in opposite direction, perform a $1 / 4 \mathrm{knife}$-edge loop while integrating a $1 / 4 \mathrm{roll}$, exit upright.

## AP-21.06 Half Outside Loop, Loop

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

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

From inverted perform a $3 / 4$ roll into knife-edge flight, perform a $1 / 2$ roll in opposite direction into knife-edge flight, perform a $3 / 4$ roll in opposite direction to the $1 / 2$ roll, exit inverted

## AP-21.08 Figure Nine Crossbox Combination with quarter roll, two consecutive quarter rolls, half roll integrated <br> From inverted, push through a $3 / 4$ loop into a vertical downline, perform a $1 / 4$ roll, push through a $1 / 4$ loop into a horizontal line, perform consecutively two $1 / 4$ rolls, perform a $1 / 4$ circle while integrating a $1 / 2$ roll, exit inverted.

## 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 $1 / 4 \mathrm{knife}-$ edge loop into a 45 degree upline, perform a $1 / 4$ knife-edge loop into a 45 degree downline, perform a $1 / 4$ roll, pull through a $1 / 4$ loop into a 45 degrees downline, pull through a $1 / 8$ loop, exit upright.

## AP-21.10 Comet with half roll, half roll

From upright, pull through a $1 / 8$ loop into a 45 degree upline, perform a $1 / 2$ roll, pull through a $3 / 4$ loop into another 45 degree upline, perform a $1 / 2$ roll, pull through a $1 / 8$ loop, exit inverted.

## AP-21.11 Double Key from top with $1 / 4$ roll, $1 / 4$ roll

From inverted, pull through a $1 / 4$ loop into a vertical center downline pull through a $5 / 8$ loop into a 45 degrees upline, perform a $1 / 4$ roll, perform a $1 / 4$ knife-edge loop, perform a $1 / 4$ roll, push through a $5 / 8$ loop into a vertical center upline, push through a $1 / 4$ loop, exit upright

The Aresti diagram appears overleaf.

PRELIMINARY SCHEDULE AP-21 (2020-2021)


## AF-21.01 Half Hourglass with two consecutive one eighth rolls, quarter roll, half roll

From upright, before reaching the center pull through a $1 / 8$ loop perform consecutively two $1 / 8$ rolls into a 45 degree knife-edge upline, perform a $3 / 8$ knife edge loop into a horizontal line, perform a $1 / 4$ roll, pull through a $3 / 8$ loop into a 45 degree downline, perform a $1 / 2$ roll, push through a $1 / 8$ loop, exit inverted.

## AF-21.02 Half Cuban Eight with roll integrated, two consecutive quarter rolls in opposite direction

 From inverted, push through a 5/8 loop into a 45 degree downline, while integrating a roll within the first 180 degrees of the $5 / 8$ loop, perform consecutively two $1 / 4$ rolls in opposite direction, pull through a $1 / 8$ loop, exit upright.AF-21.03 Square Horizontal Eight with $1 / 4$ roll, $1 / 2$ roll, $1 / 4$ roll, $1 / 4$ roll, $1 / 2$ roll, $1 / 4$ roll
From upright, perform a quarter roll in the center, perform a $1 / 4 \mathrm{knife}$-edge loop into a vertical upline, perform a $1 / 2$ roll, perform a $1 / 4$ knife edge loop (against entry direction), perform a $1 / 4$ roll into upright flight, push through a $1 / 4$ loop into a vertical downline, pull through a $1 / 4$ loop, perform a $1 / 4$ roll into knife edge flight, perform a $1 / 4$ knife-edge loop into a vertical upline, perform a $1 / 2$ roll, perform a $1 / 4$ knife edge loop into a horizontal line(in entry direction), perform a $1 / 4$ roll into upright flight, push through a $1 / 4$ loop into a vertical downline, pull through a $1 / 4$ loop, exit upright.

## AF-21.04 Pull-Push-Pull Humpty Bump with quarter roll, two consecutive opposite half rolls integrated, quarter roll

From upright, pull through a $1 / 4$ loop into a vertical upline, perform a $1 / 4$ roll, push through a $1 / 2$ loop into a vertical downline, while integrating consecutively two $1 / 2$ rolls in opposite direction, perform a $1 / 4 \mathrm{roll}$, pull through a $1 / 4$ loop, exit upright

AF-21.05 Horizontal Eight with half torque roll, half roll integrated, half torque roll, half roll integrated From upright, fly past center pull through a $1 / 4$ loop, into a $1 / 2$ torque roll, followed by a pushed $1 / 4$ loop, push through a $1 / 4$ loop, while integrating the first $1 / 4$ of a $1 / 2$ roll, while continuing rolling (second $1 / 4$ of the $1 / 2$ roll) push through a $1 / 4$ loop, immediately push through a $1 / 4$ loop, into a $1 / 2$ torque roll, followed by a pulled $1 / 4$ loop, pull through a $1 / 4$ loop, while integrating the first $1 / 4$ of a $1 / 2$ roll, while continuing rolling (second $1 / 4$ of the $1 / 2$ roll) pull through a $1 / 4$ loop, exit upright.
Note: Radius size and shape of the horizontal eight must be maintained.

## AF-21.06 Corner Combination with two consecutive quarter rolls, three quarter roll

From upright, perform a $1 / 4$ circle with wing level into a cross box line, perform consecutively two $1 / 4$ rolls push through a $1 / 4$ loop into a vertical upline, perform a $3 / 4$ roll, pull through a $1 / 4$ loop exit inverted.

## AF-21.07 Reverse Double Fighter Turn with quarter roll, half roll, half roll, quarter roll

 From inverted, pull through a $1 / 8$ loop into a 45 degree downline, perform a $1 / 4$ roll, push through a half knife edge circle into a 45 degree upline, perform a $1 / 2$ roll, perform a $1 / 4$ knife edge loop into a 45 degree downline, perform a $1 / 2$ roll, push through a $1 / 2$ knife edge circle into a forty five degree upline, perform a $1 / 4$ quarter roll, pull through $1 / 8$ loop, exit inverted.
## AF-21.08 Half Loop with integrated roll

From inverted, pull through a $1 / 2$ loop while integrating a roll, exit upright.
AF-21.09 Horizontal Square with quarter roll, quarter circle with half roll integrated, two consecutive quarter rolls, quarter circle with half roll integrated, knife edge loop, quarter circle with half roll integrated, two consecutive quarter rolls, quarter circle with half roll integrated, quarter roll From upright, perform a $1 / 4$ roll in the center, perform a $1 / 4$ circle while integrating a $1 / 2$ roll, perform consecutively two $1 / 4$ rolls, perform a $1 / 4$ circle while integrating a $1 / 2$ roll, perform a knife edge-loop, perform a $1 / 4$ circle while integrating a $1 / 2$ roll, perform consecutively two $1 / 4$ rolls, perform a $1 / 4$ circle while integrating a $1 / 2$ roll, perform a $1 / 4$ roll, exit upright.

## AF-21.10 Trombone with three quarter roll, half roll integrated, three quarter roll

From upright, perform a $1 / 8$ loop into a $45^{\circ}$ upline, perform a $3 / 4$ roll, perform a $1 / 2$ knife-edge loop into a 45 degree downline while integrating a $1 / 2$ roll, perform a $3 / 4$ roll, push through a $1 / 8$ loop, exit inverted.

## AF-21.11 Double Stall Turn with quarter roll, half roll integrated, quarter roll

From inverted, fly past center, push through a $1 / 4$ loop into a vertical upline, perform a $1 / 4$ roll, perform a stall turn into a vertical downline, perform a $1 / 2$ knife-edge loop into a vertical upline, while integrating a half roll, perform a stall turn into a vertical downline, perform a $1 / 4$ roll, pull through a $1 / 4$ loop, exit upright.

FINAL SCHEDULE AF-21 (2020-2021)


## Manoeuvres - Schedule F3P-AFM

## AFM1. Take-off Sequence

Place the model aircraft on the floor and take-off.

## AFM2. Freestyle

A sequence of manoeuvres, freely composed by the competitor and flown in harmony to simultaneously played music of his choice. Any possible flight manoeuvres may be flown and "show effects" presented, as long as safety is not compromised and conformity to the rules is met. It is permitted to perform different programs in conjunction with different music in each round. For Final flights at World and Continental Championships, it is obligatory to have two different programs, schedule 1 and schedule 2, in conjunction with differently arranged music. Schedule 1 must be flown in final round one and three, Schedule 2 in final round two and four. The performance is judged for the entire flight from start to finish and in accordance to the following five criteria:

For Freestyle flights the judges can give up to the maximum points. 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.

## Precision and Accuracy

The manoeuvres and figures should be executed with precision and accuracy, with the competitor demonstrating that he has the aircraft under full control in all attitudes. It should be clear to the judges that the manoeuvres flown, were in fact, intended and fully under the pilot's control. Higher marks will be given under this heading when individual manoeuvre elements are started and finished on obviously precise headings and well-defined attitudes.

## Complexity

This criterion evaluates the level of difficulty and variety of manoeuvres of the freestyle flight. It is important, that the entire flight is to be judged, not only some highlights, so that the score reflects the average level of difficulty and variety. In addition, the pilot is to utilise the full flight performance scope of his model: fast and slow flying, snap manoeuvres, hovering etc. The manoeuvres should show positive as well as negative "g"-portions: loops, rolls, snaps, spins, stall-turns, tail-slides, hovering, torque-rolls, flat circles, Lomcevacs, circles, etc. Frequent repetition of the same manoeuvre has to be downgraded respectively. Manoeuvres should be positioned in parallel or rectangular to the safety line. Poorly governed, unplanned or casually flown manoeuvres will be downgraded. The same applies to phases less extraordinarily attractive.
Risky manoeuvres should never be mistaken as difficult manoeuvres. Risky manoeuvres must not lead to higher scores for difficulty, but result in a downgrade for safety.

## Harmony of Flight to Music

K-30
The difficulty for competitors in AFM will be to fly perfectly in harmony and rhythm with a musical arrangement that they have selected themselves. The flight performance should be synchronised with the music and must not be a "3D-sketch" with background music.
The manoeuvres should follow the music and end with it. In AFM flights, the transformation of musical accents into the performance is of great importance.
The selected music piece(s) should flow through transitions, but contain fast-slow, soft-loud and dramatic sections. Dynamic and diversified sequences will lead to higher scores here. There should be a variety of different tempi in the presentation. The mood of the selected music should be reflected in the manoeuvres and the presentation. Flights to music pieces with little contrast, variety or tempi result in downgrades.
Marks should be deducted in this category for a flight that shows no relation between the rhythm of the evolutions and the music, therefore transforming the musical accompaniment to simple background music.

## Utilisation of Manoeuvring Area

The presentation should fill the manoeuvring area. The performance should be orientated towards judges and spectators, although risky flying towards judges and spectators will result in downgrades.

