HELP FOR TRAINERS AND PILOTS

P4-Looping-2020-2021

By Roger Lacôme

As you can see with the two hovering figures, the helper function (caller) during a competition and that of trainer, are two very distinct functions.

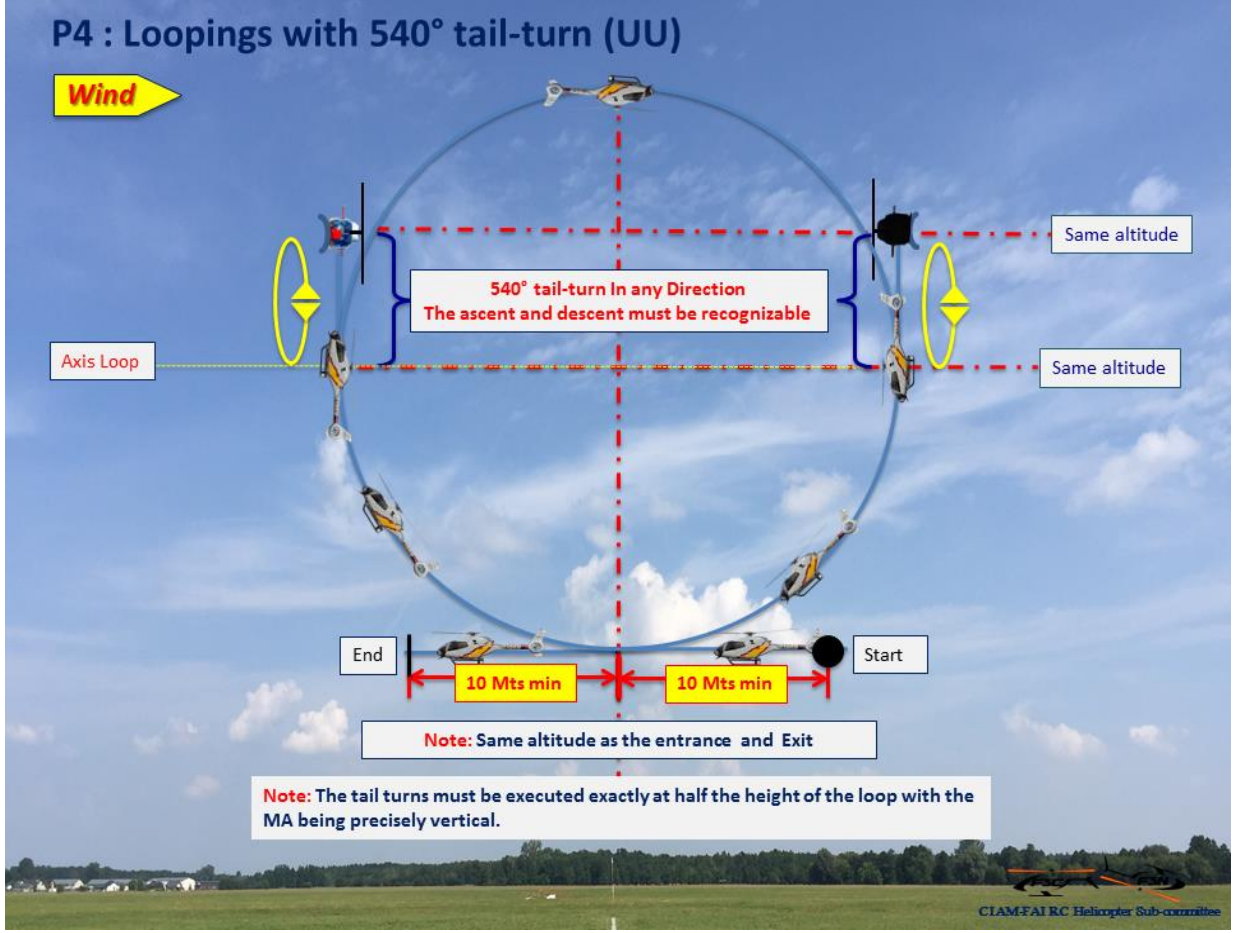
The helper (caller):

The mechanic / caller must announce the start, finish and name of each maneuver, and should inform the pilot of the wind direction, the remaining flight time, the proximity to prohibited areas and intrusions into the flight area.

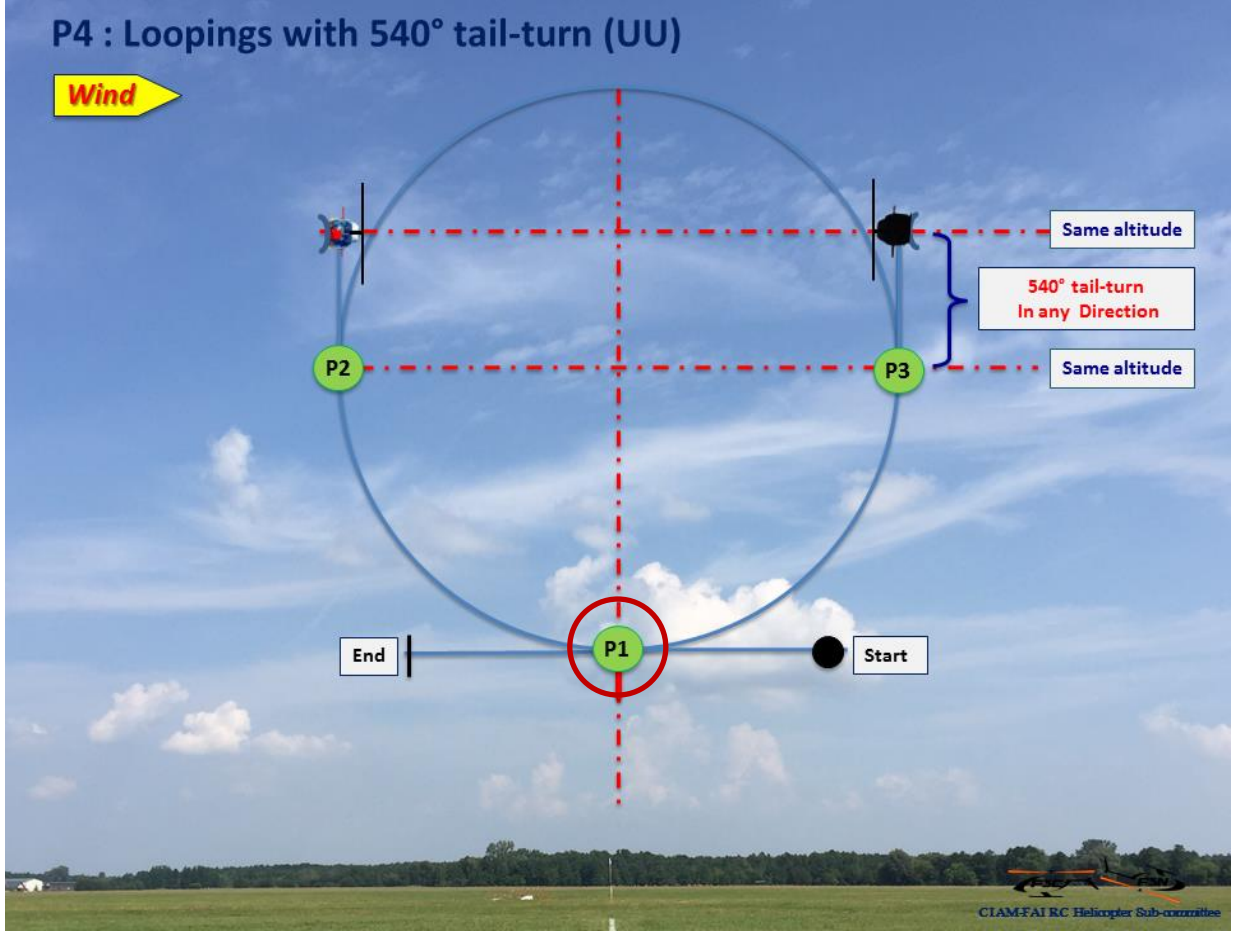
The trainer:

A trainer is a purely coaching function,, it must be positioned in different places (especially for stationary figures) in order to be able to check all the particular points of each figure.

Another important point that the majority of pilots forgot during aerobatic tricks is that the flight plan must be parallel to the judges' line.

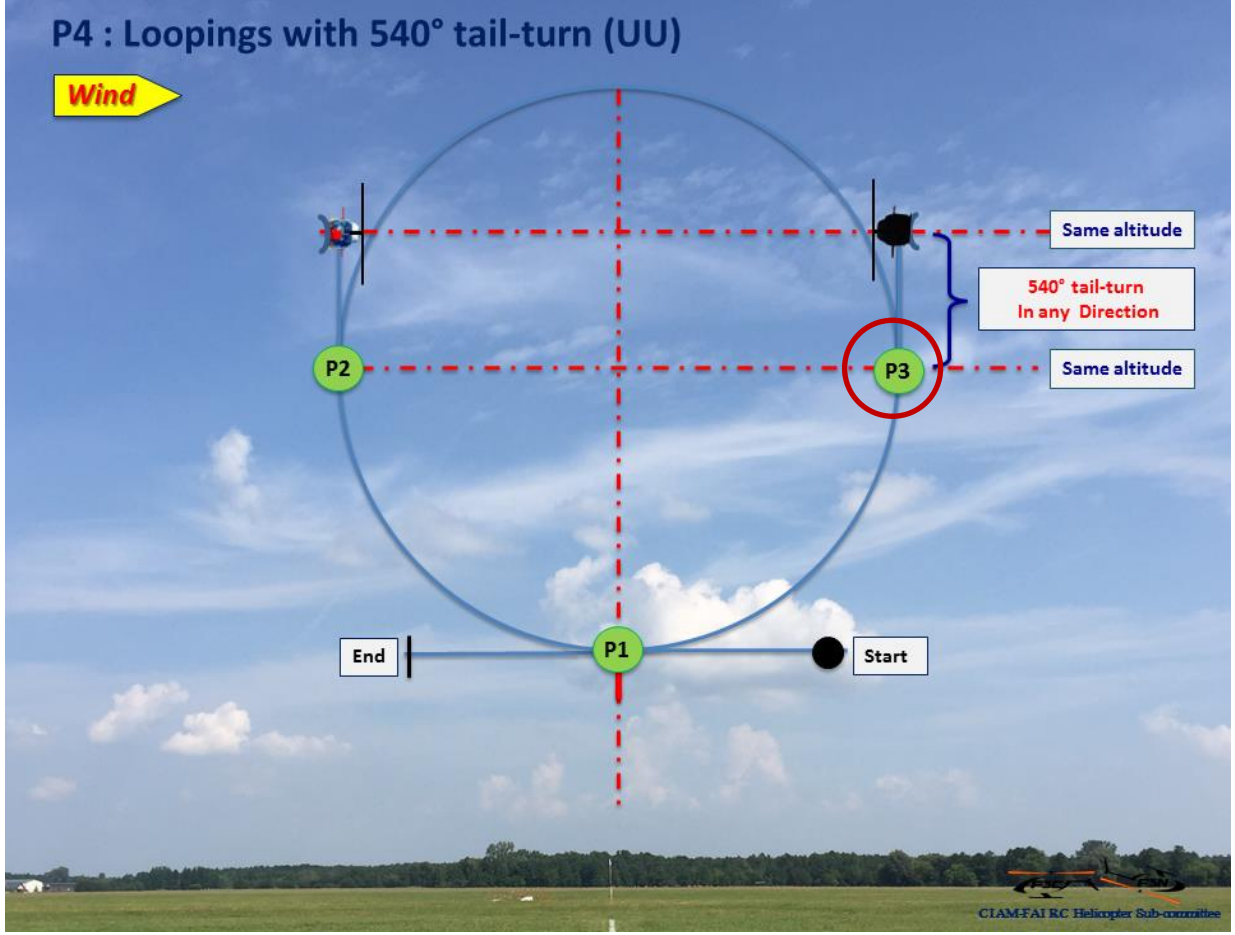


MA flies straight and level for a minimum of 10 m and performs 1 ¼ loop starting from the center line.
When reaching half of the height of the former loop MA performs a 540° tail turn in any direction followed by a half loop in opposite direction.
When reaching again half of the height of the first loop MA performs a second 540° tail turn in any direction.
After MA pulls with quarter loop into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.
Note: The tail turns must be executed exactly at half the height of the loop with the MA being precisely vertical.



This figure has several points of passage difficult to achieve namely:

P1: the MA has to pass 4 times at this point:
- 1st time: at the very beginning of the figure.
- 2nd time: at the end of the complete loop.
- 3rd time: half of the half loop (opposite direction).
- 4th time: at the end of the quarter loop.



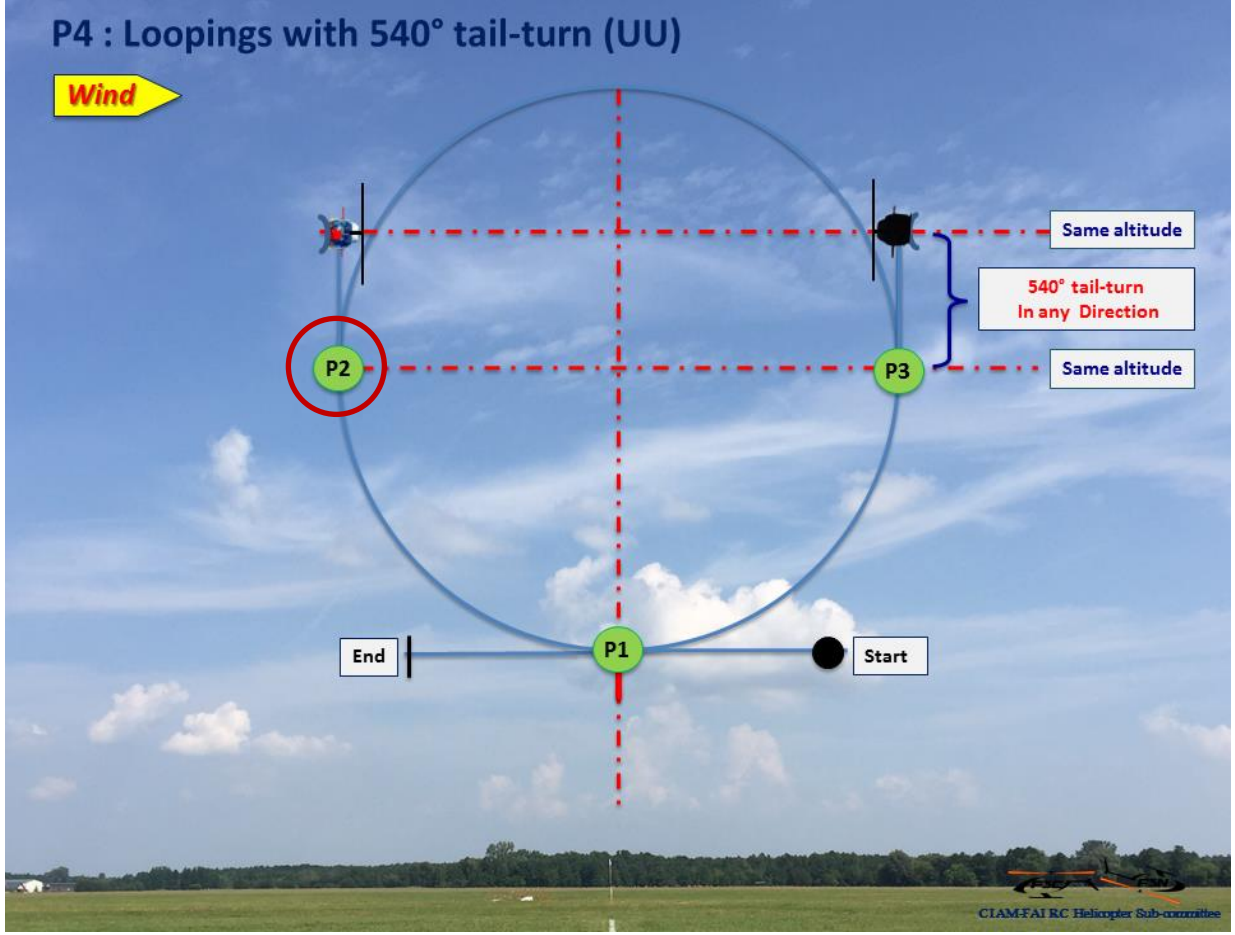
This figure has several points of passage difficult to achieve namely:

P2: the MA has to pass 3 times at this point:

- 1st time: at the end of the first quarter of the loop.

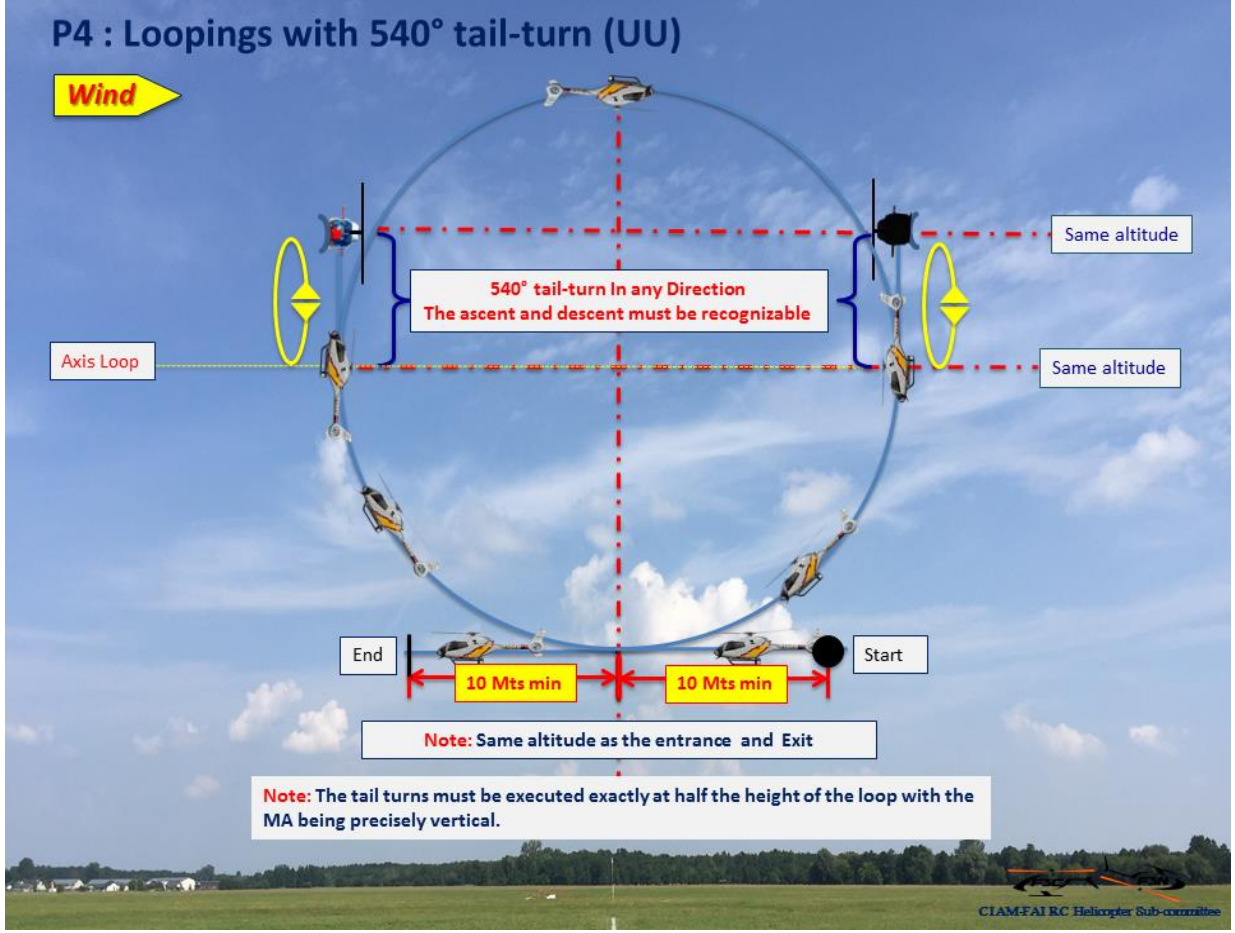
- 2nd time: at the end of the 1/¼ loop.

- 3rd time: at the end of the first 540 ° tail-turn.



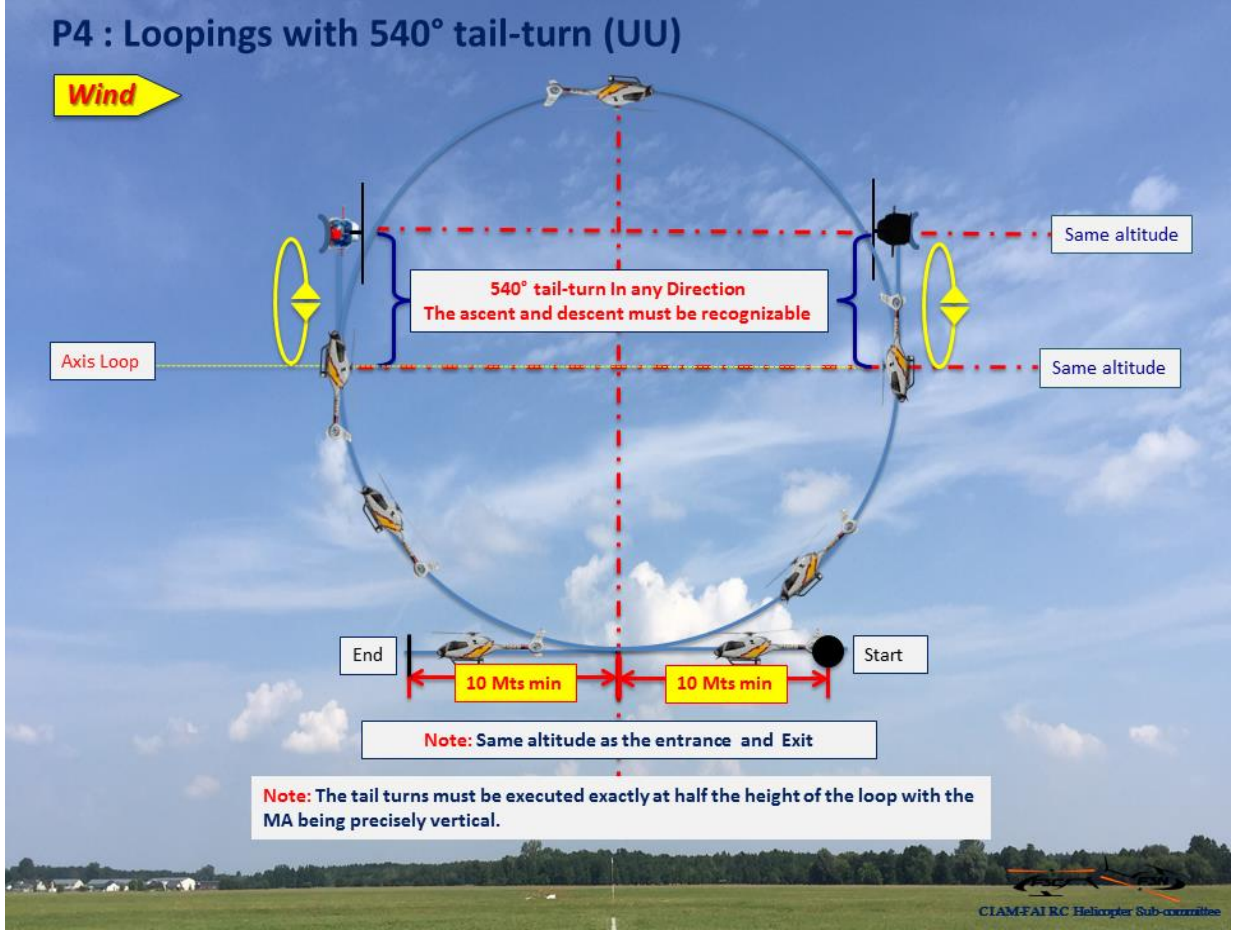
This figure has several points of passage difficult to achieve namely:

P3: it is necessary that the MA passes 3 times also:
- 1st time: at the end of the loop ¾.
- 2nd time: at the end of the half-loop (opposite direction).
- 3rd time: at the end of the second tail-turn.

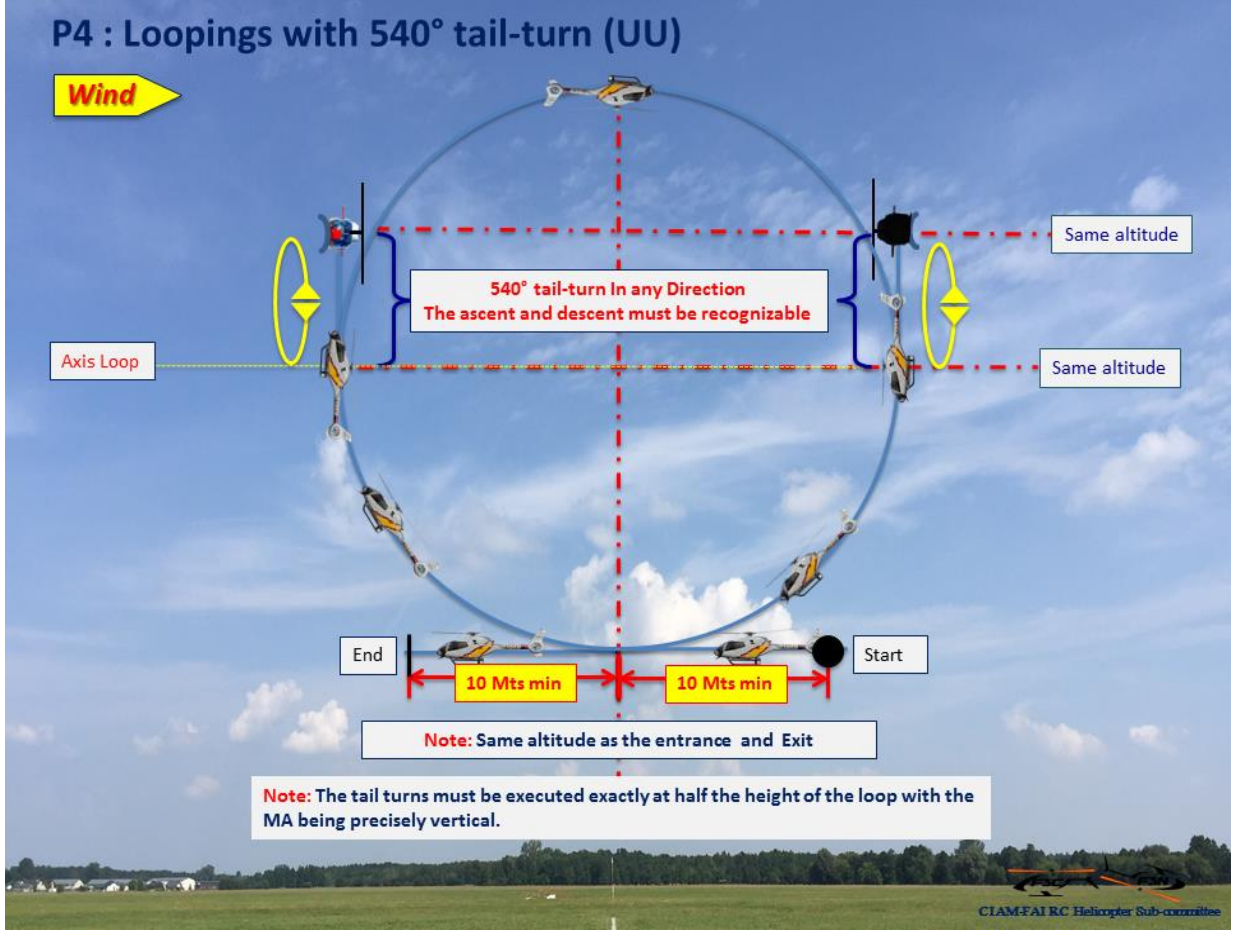


At the same crossing points, you must respect the same altitudes, the same distance from the center line for the ascents of the two 540 ° tail-turns, and as this is not enough, you must also always be in the same plane, and there, the figure becomes very difficult!

This is how a figure that is relatively simple in terms of steering becomes formidable for performing it correctly.



A quick reminder about running a tail-turn:
Half of the rotation must be done during the ascent and the other half during the descent.
In this case, it is necessary to make 270° while going up and 270° in the descent, although to see the video on this subject.

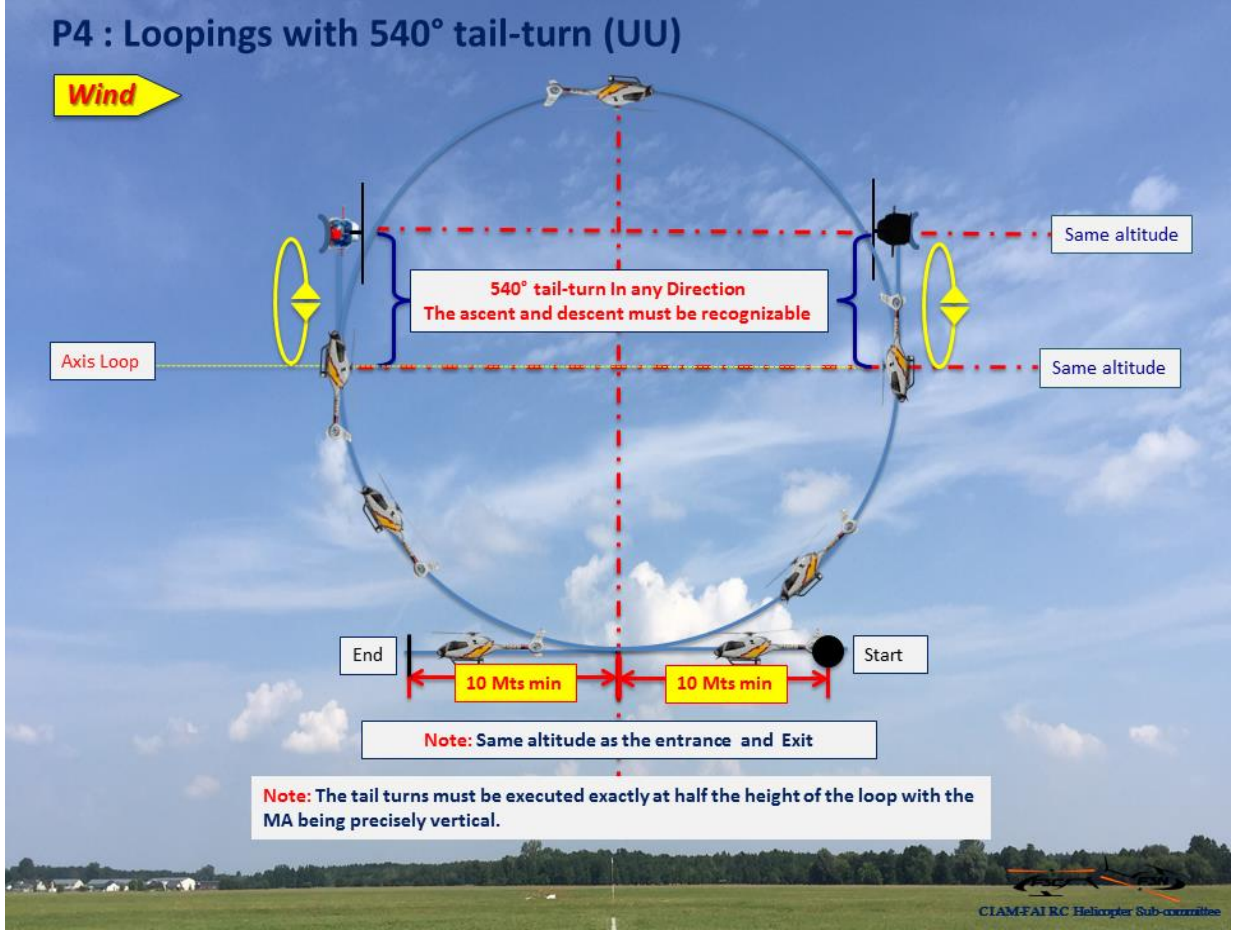


The ascent must begin when the helicopter crosses the horizontal axis of the loop and must end in the same place and I recall it out on the same plane.

There is nothing to impose concerning the distance of the climb with the first 270 ° of rotation, but it would be desirable that it is at least a length of fuselage.

Ascertainment: When there is wind, the greater the radius of the loop, the greater the risk of shifting from the flight plan.
Conversely, the smaller the radius of the loop, the easier it is to stay on the plane.

But as usual, each pilot follows his riding style.



Thanks for your interest

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