

# HELP FOR TRAINERS AND PILOTS

## P6-Oval-2020-2021

By Roger Lacôme



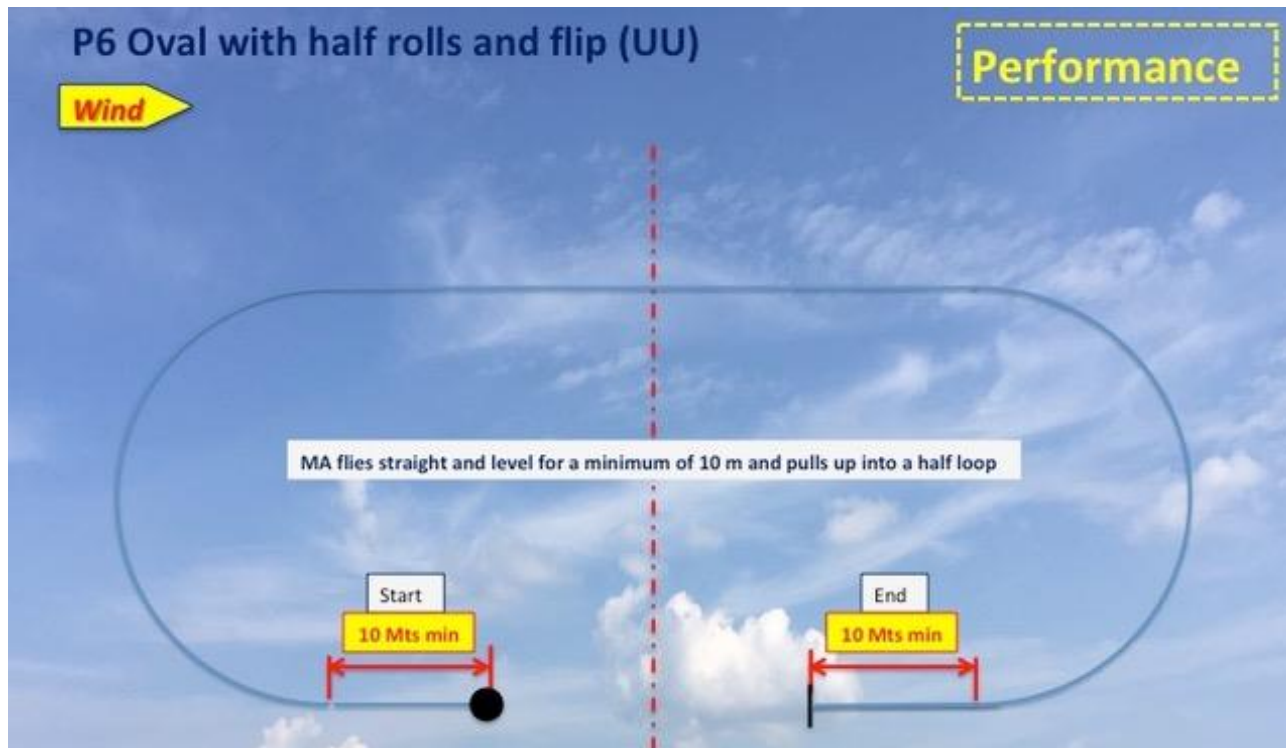
## P6 : Oval with half rolls and flip

Before starting the comments it is necessary to clear up a misunderstanding concerning the "start" and figure "end".

Official description:

MA flies straight and level for a minimum of 10 m and pulls up into a half loop .....

But during the last World Championship in Germany (2019), an English coach / pilot pair made a very special interpretation,, which disturbed several pilots because the coach (caller / helper) gave the start well after the helicopter has passed the center line and the top end well before the helicopter has crossed the center line. (see the drawing below)

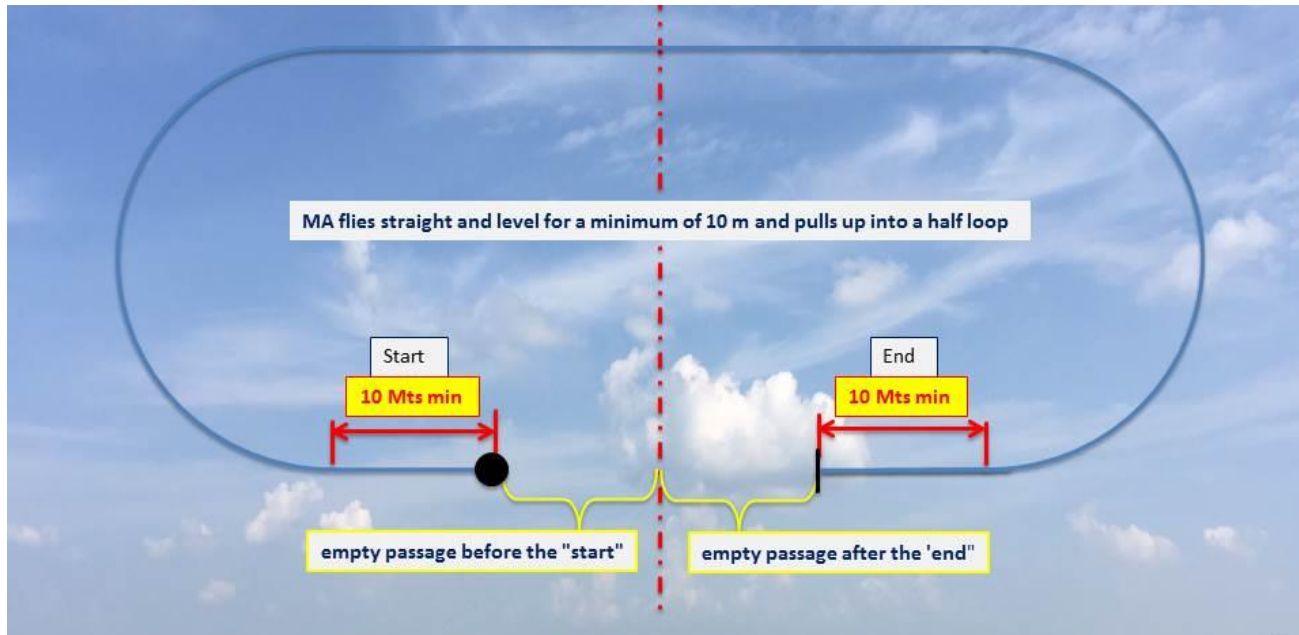


WA priori one would believe that all is well, there was indeed a translation of 10m minimum followed by a half-loop!

**But in fact this is of course a misinterpretation.**

## Why is this a bad interpretation?

Simply because if the start is given after passing the center line, this means that the helicopter has made an empty run and it is prohibited, a figure must be performed on each pass. The same applies if the end of figure is given before the crossing of the center line, again the helicopter would make an empty run. (see the drawing below)

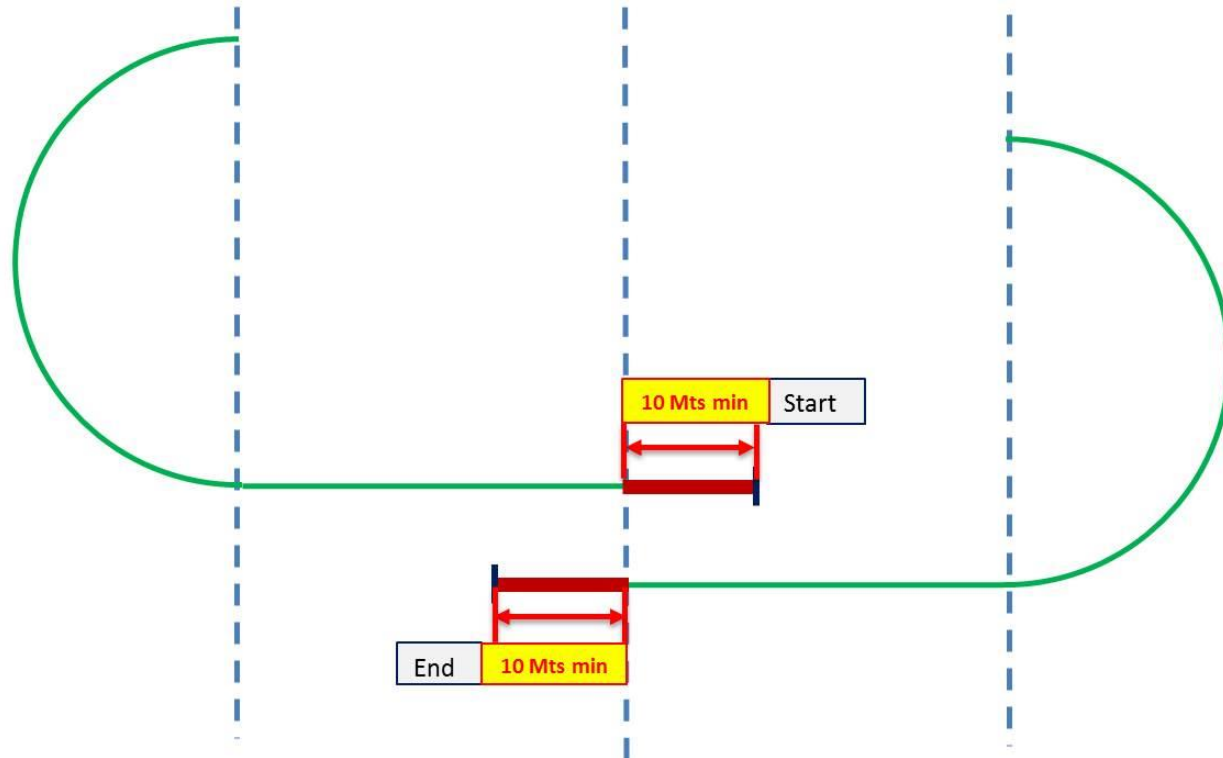


In order to fully understand where the “top” start and end of the figure should be located, here is a description (unofficial) but which precisely describes these two contentious points.

MA flies straight and level for a minimum of 10m before crossing centre line, continues on the same trajectory and pulls up into a half loop,

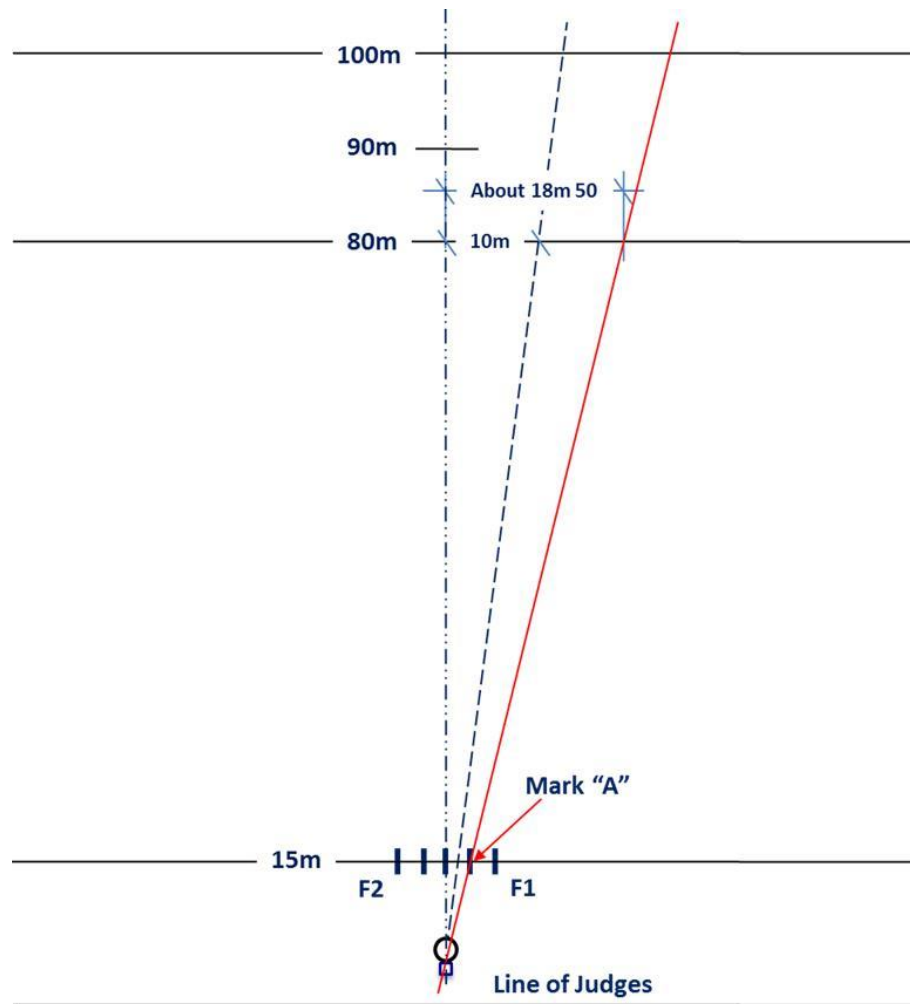
- followed by a half roll in any direction,
- followed by a traveling 360° centered pulled flip,
- followed by a second half roll in any direction,
- MA then performs a half positive loop followed a level flight to the centre line then ends the flight over a minimum of 10m at the same altitude as when entering the figure.

### P6 Oval with half rolls and flip (UU)



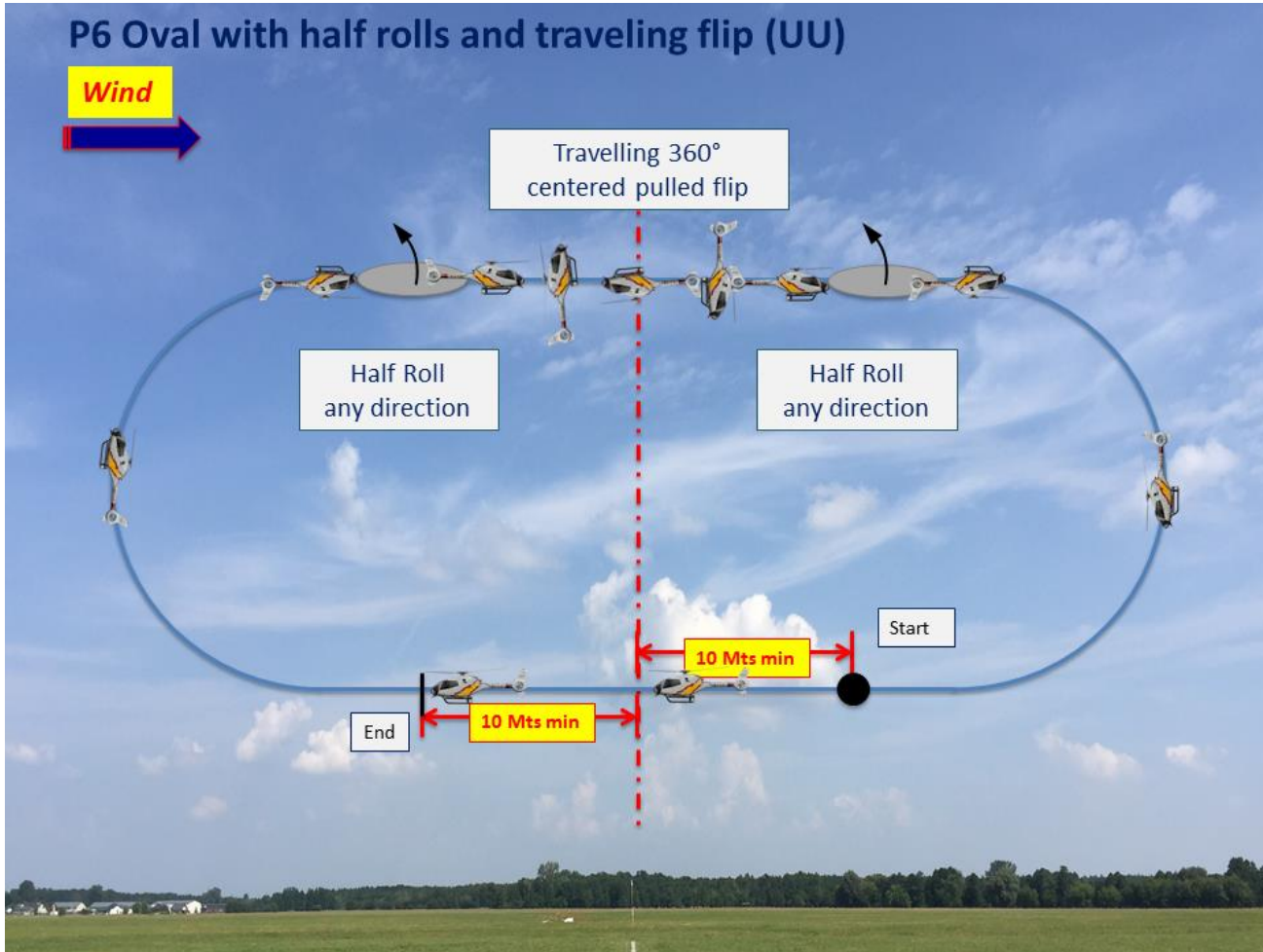
It is also not necessary to announce the start of the figure 60m before the center line as practically all coaches (callers / helpers), **for safety 15 to 20m before is sufficient.**

For this, it is enough that the caller from his position (in competition) behind the pilot aims at the mark "A" to announce the start of the figure, and the same for the end of the figure with the mark "B", see the drawing below.



The good side of all this is that it was thanks to or because of this misinterpretation that a pilot asked me for help with the execution of the figures, which triggered the idea of making all the comments of the set of figures for trainers.

Now that the point is made in order to know how and where to start the figure it is time to deal with the comments concerning the execution of the figure.



#### Official description

#### P6: Oval with 1/2 Rolls and Flip (UU) K=1.0

MA flies straight and level for a minimum of 10 m and pulls up into a half loop followed by a half roll in any direction, followed by a travelling 360° centered pulled flip and followed by a second half roll in any direction. MA then performs a half positive loop and pulls into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

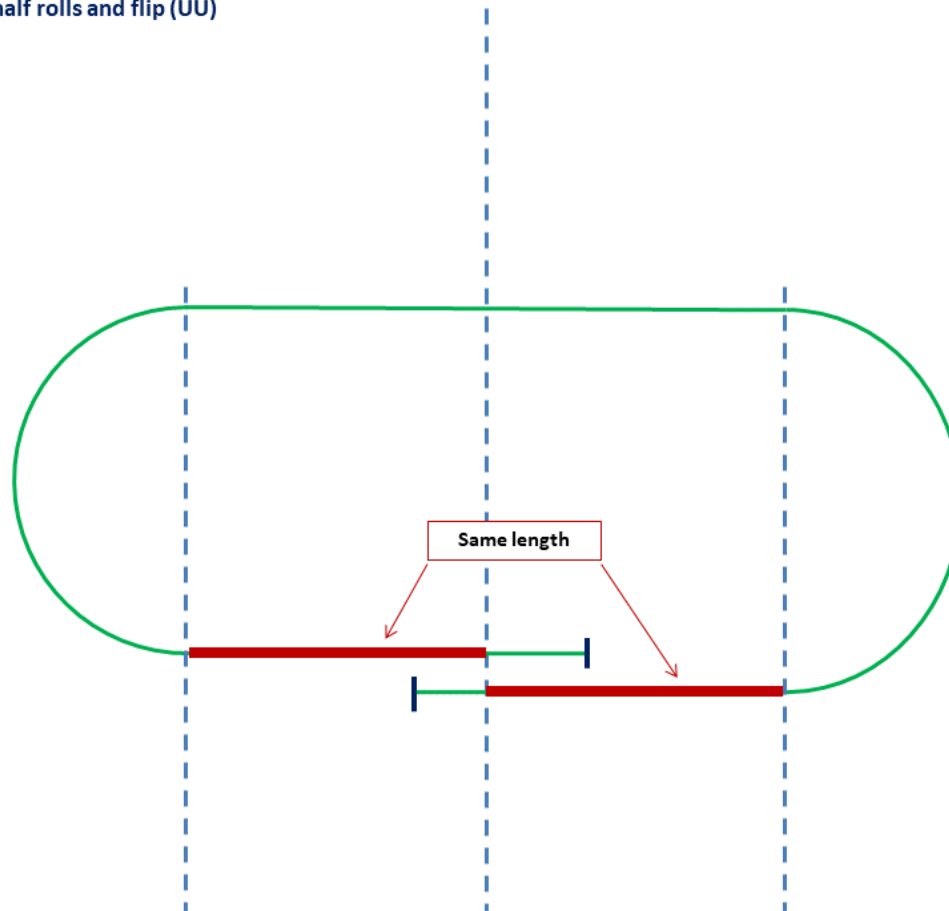
**Note 1:** If there is a straight line before the first half roll, there must be the same straight line after the second half roll.

**Note 2:** If there is a straight line after the first half roll, there must be the same straight line before the second half roll.

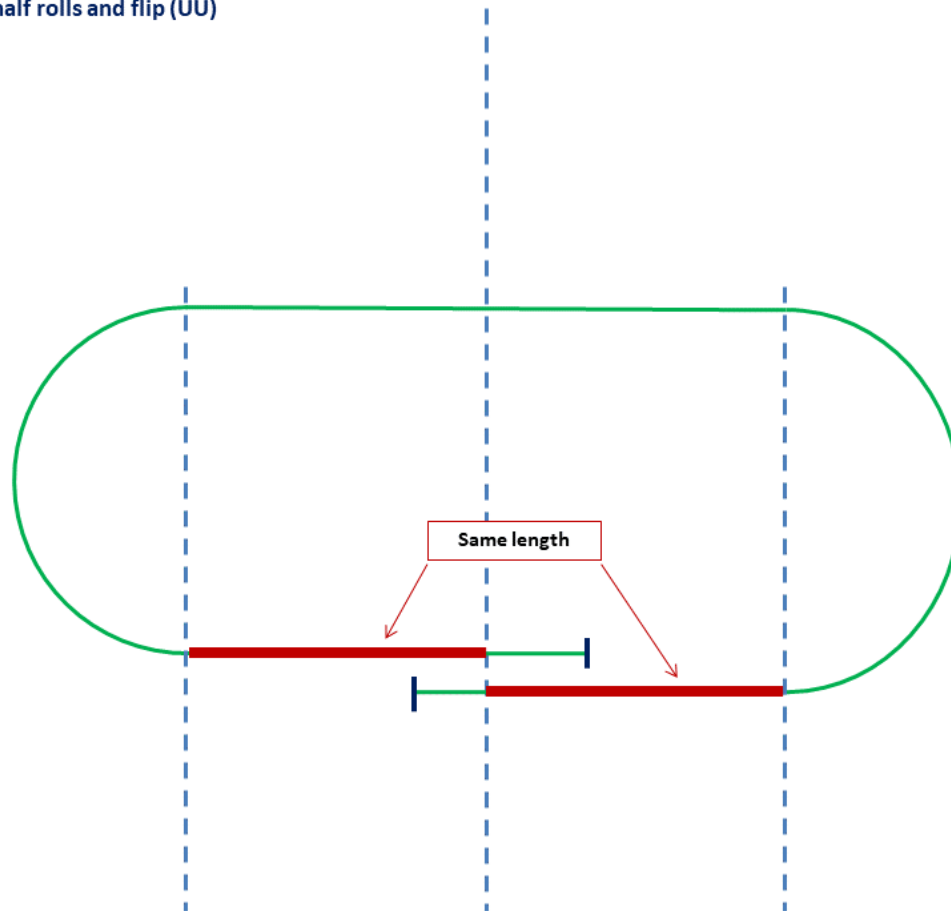
A point that many pilots (not to say all pilots) forget about the straight line between the second half-loop and the crossing of the center line.

If the straight line at the beginning of the figure after the crossing of the center line is 30m long, it is necessary that the straight line at the end of the figure before crossing again the central line is the same length (30m). While most of the time this last straight line is shorter than that of the beginning of the figure.

P6 Oval with half rolls and flip (UU)



## P6 Oval with half rolls and flip (UU)



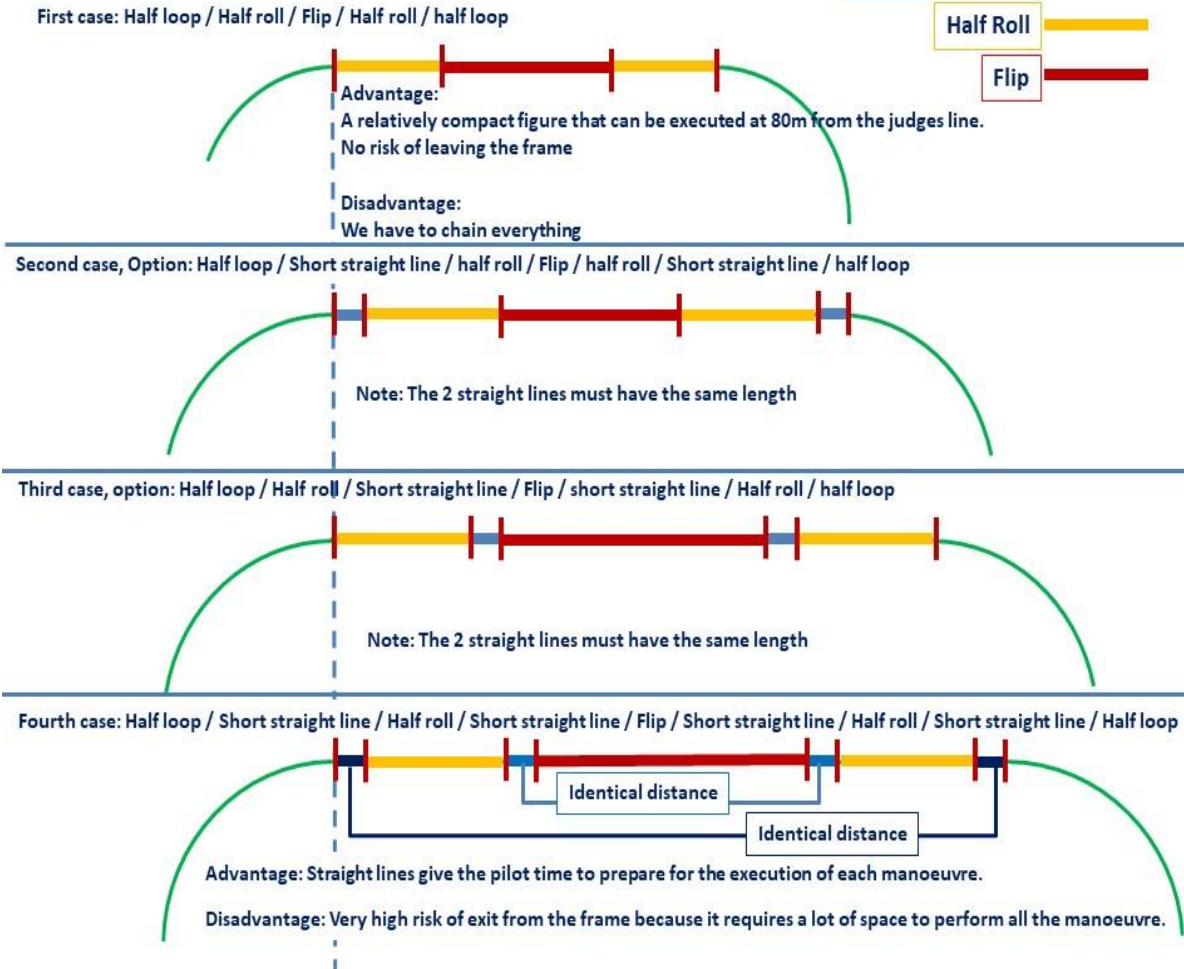
Now let's talk about the radius of the half-loops, as much in the pulback we have to make buckle parts with a relatively small radius, as much for this figure we need relatively large radius so that the half-loop of recovery is ample, that is- that is to say, gently, while if the radius is small the output is not pleasant to see, the junction between the end of the half loop and the beginning of the straight line is brutal.

This is not all, the trainer must pay attention to notes 1 and 2, if there is a straight line before or after the first half-roll there must be the same straight lines before and after the second half-roll, often off the first straight line before the half roll is short and the one after the second half roll is longer.

There are four ways to execute this figure, see the drawings below.



## P6 Oval with half rolls and flip (UU)

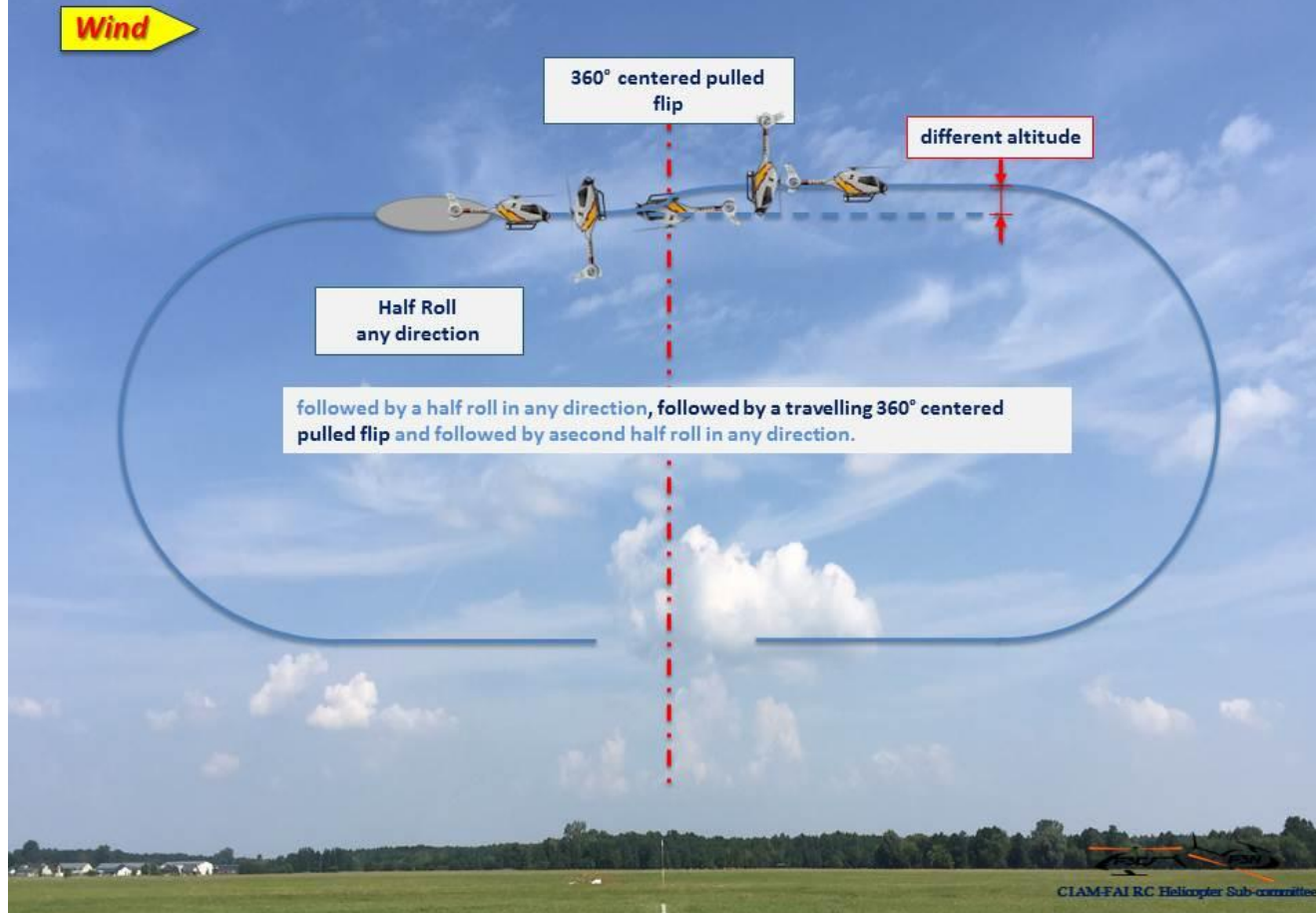


So if a pilot decides to make straight lines it will be necessary as short as possible otherwise the risk of exit from the frame of 120 ° will be important.

Regarding the flip, it must of course be centered, that is to say that when the helicopter crosses the center line, it must be in reverse flight, but this is not the only point that the trainer should monitor.

The trainer must also monitor the height difference between the flip entry and the exit, see the drawing below, as the penalty can range from 0.5 to 1.5 points.

## P6 Oval with half rolls and flip (UU)



Summary of the main points that the trainer must monitor during the training of a pilot, taking as example case N ° 2:

- The flip must be centered, the helicopter must be in reverse flight when crossing the center line.
- If there is a straight line before the half roll, there must be the same straight line after the second half roll.
- The half-loops must have a constant radius.
- The straight line following the second half-loop must have the same length as that at the beginning of the figure.

**Thanks for your interest**

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