

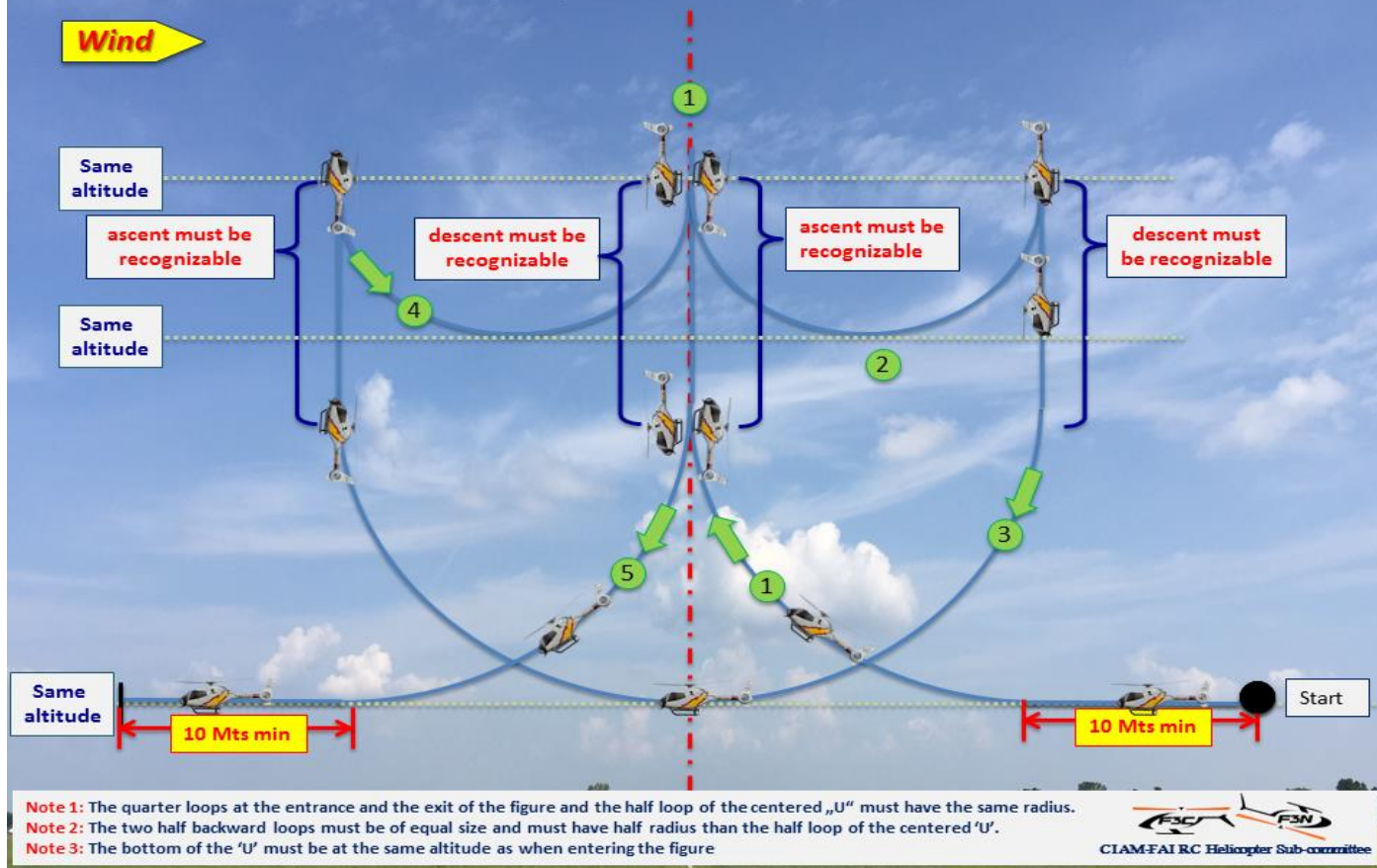
# HELP FOR TRAINERS AND PILOTS

## P6-Oval-2020-2021

By Roger Lacôme



## P8 Inverted umbrella (UU)



MA flies straight and level for a minimum of 10 m and pulls up into a vertical ascent at center line.

After a nose up stop MA performs a half backward loop.

After MA stops it performs a centered ‘U’.

After a nose up stop MA performs a second half backward loop.

After a nose down stop MA descends forward vertically on center line followed by a quarter loop and exit after a 10 m straight line at the same altitude as when entering the figure.

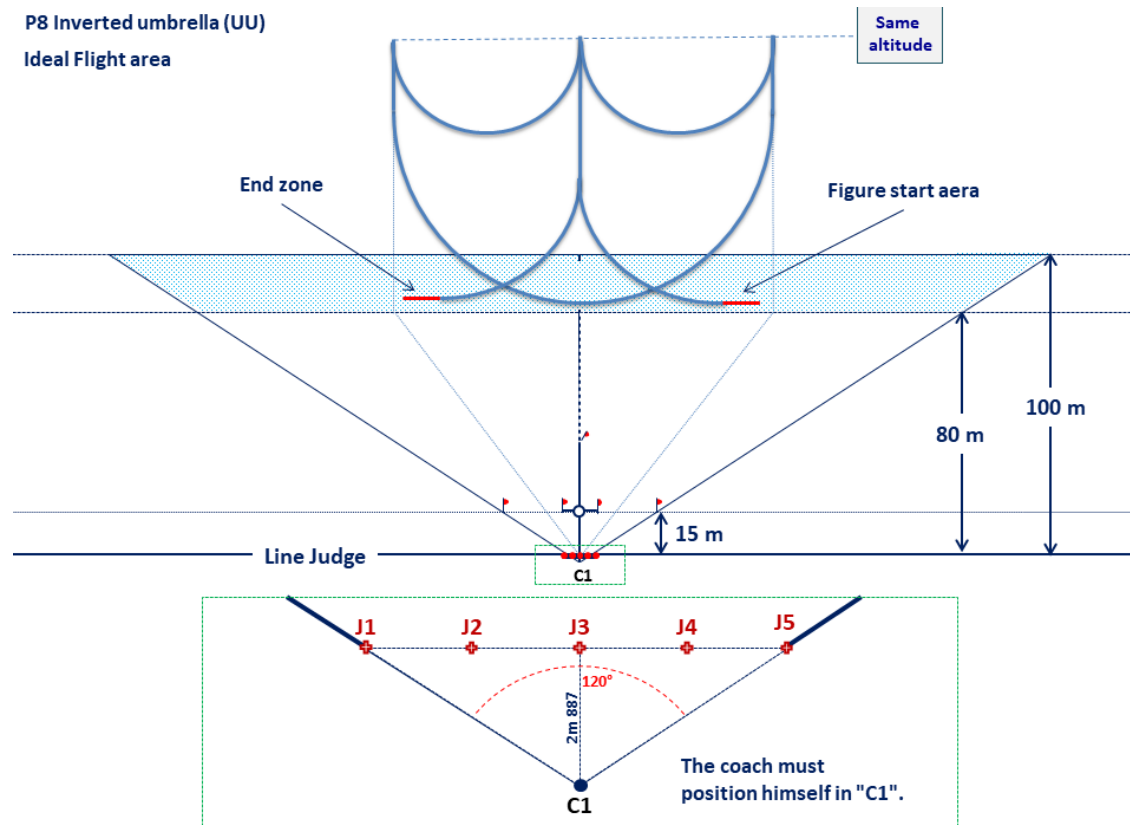
**Note 1:** The quarter loops at the entrance and the exit of the figure and the half loop of the centered ‘U’ must have the same radius.

**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

### P8 Inverted umbrella (UU)

Ideal Flight area



### Comments:

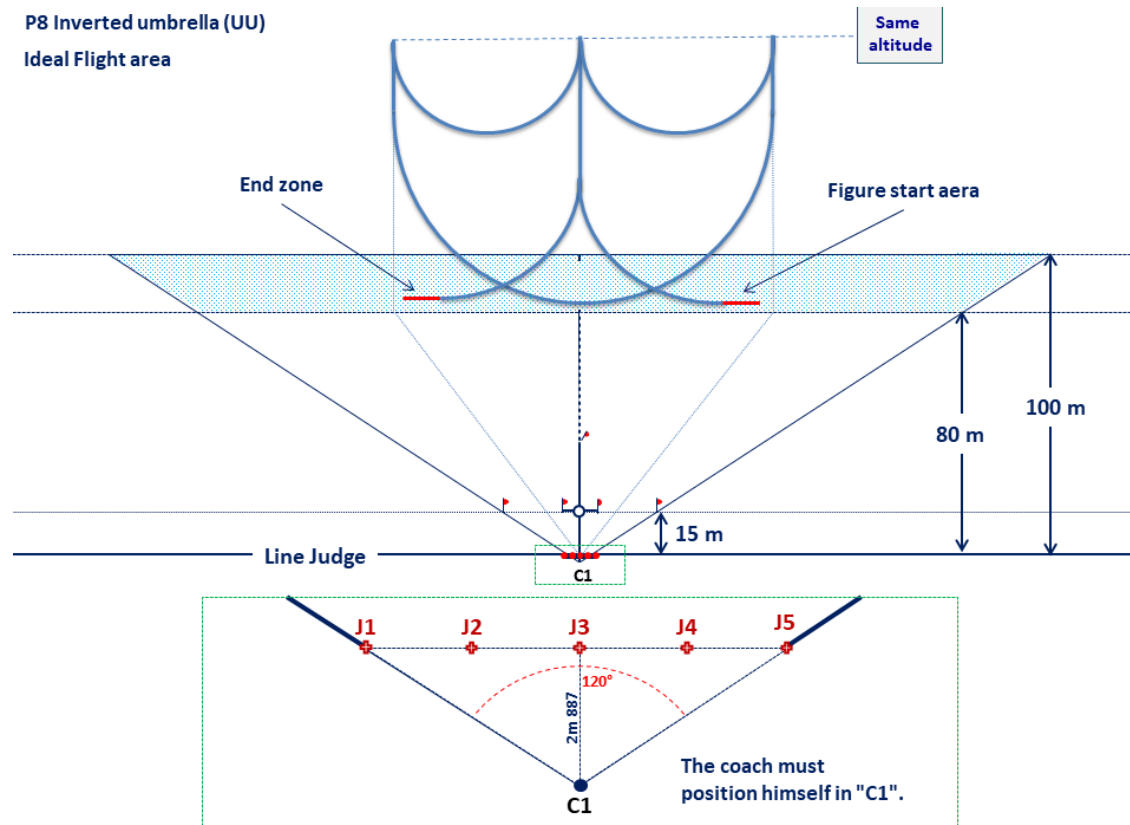
This figure does not require a lot of speed, it is better to have relatively small loop radii, so a relatively compact figure which should reduce the risk of getting out of the flight plan when there is wind.

The note 1 is very difficult to develop because before starting the figure the pilot must predict what will be the length of the radius of the half loop of the "U".

After the quarter loop, a recognizable vertical climb must be carried out, although there is nothing specified on this subject, it would be desirable for the climb to be at least the value of one or two fuselages, but this does not is not an obligation.

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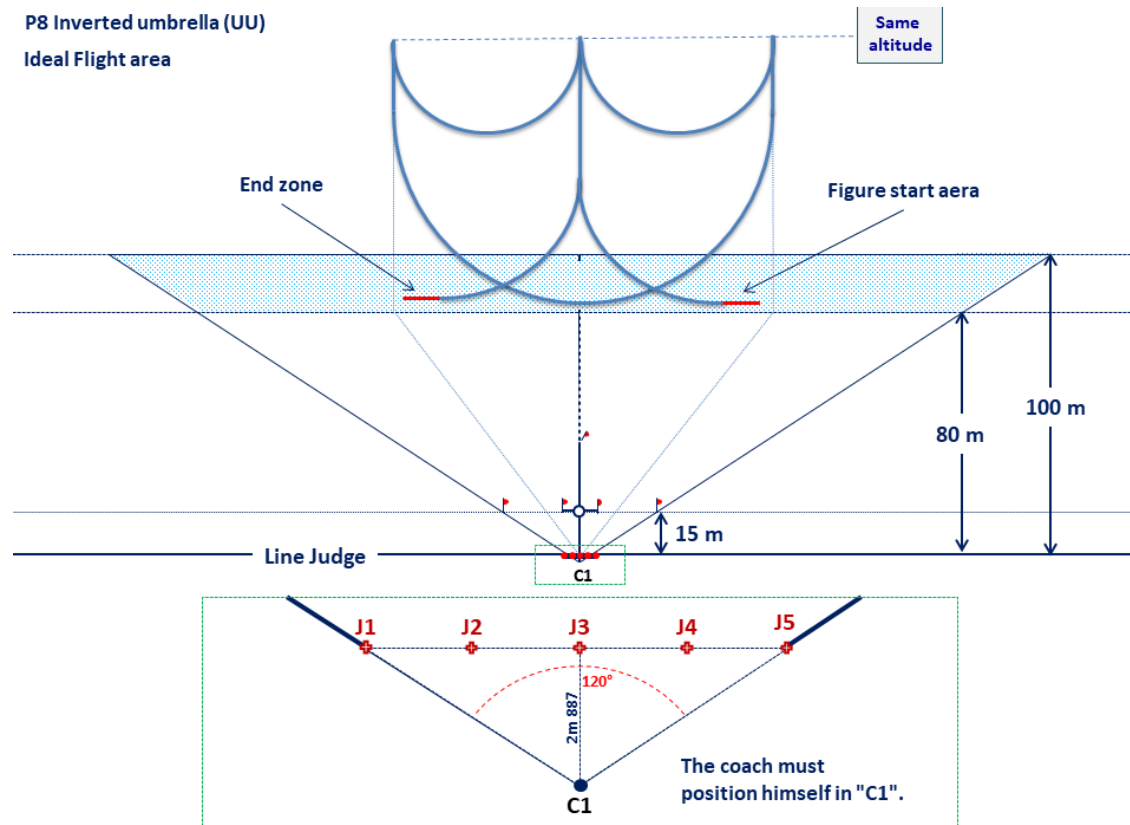
Then, it is always easier to make a half-loop with a small radius because the helicopter does not gain speed and it is especially important that there is no vertical straight line at the end of the half-loop, because the larger the radius of the half-loop the greater the speed of the helicopter and the greater the risk that the half-loop ends either with a vertical part or higher than the start of the half-loop. It is for this reason that it is better to make a relatively compact figure.

After for the "U", always the same thing, the base of the half-loop must be centered and the same altitude as the figure entry.

The end of the ascent of the "U" must be at the same altitude as the stop of the first recognizable ascent and the end of the first half-loop.

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Then it's again a half-loop, with the same radius as the first one and always stopping at the same altitude as the stopping of the recognizable ascent.

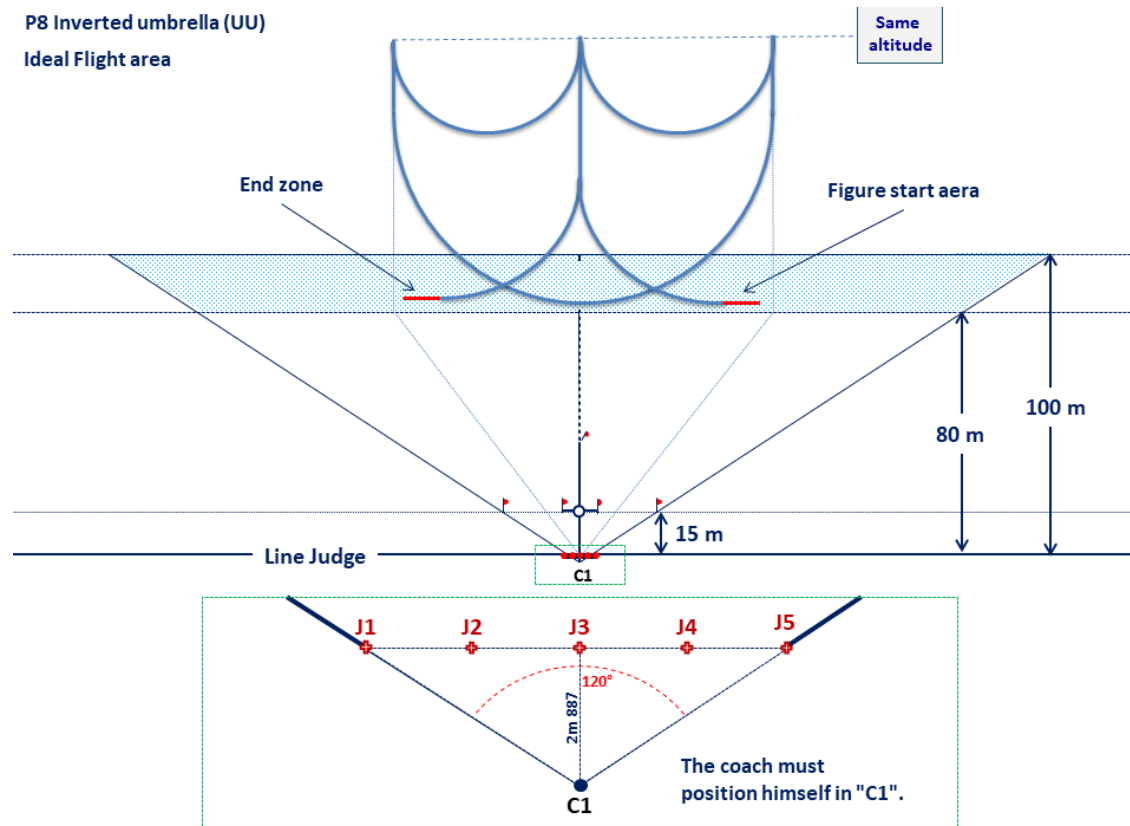
It is therefore the stop of the recognizable climb at the beginning of the figure which determines the altitude of the end of the rise of the "U" and the end of the second half-loop.

It only remains to make a vertical descent centered on the central line with an exit by a quarter loop at the same altitude as the figure entry.

Regarding the execution depth, if the figure is compact at 70 or 80 m depth this is more than enough.

Regarding the execution height, it must be relatively low, not only is it prettier, but it should not go outside the 60 ° vertical flight frame.

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**Thanks for your interest**

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