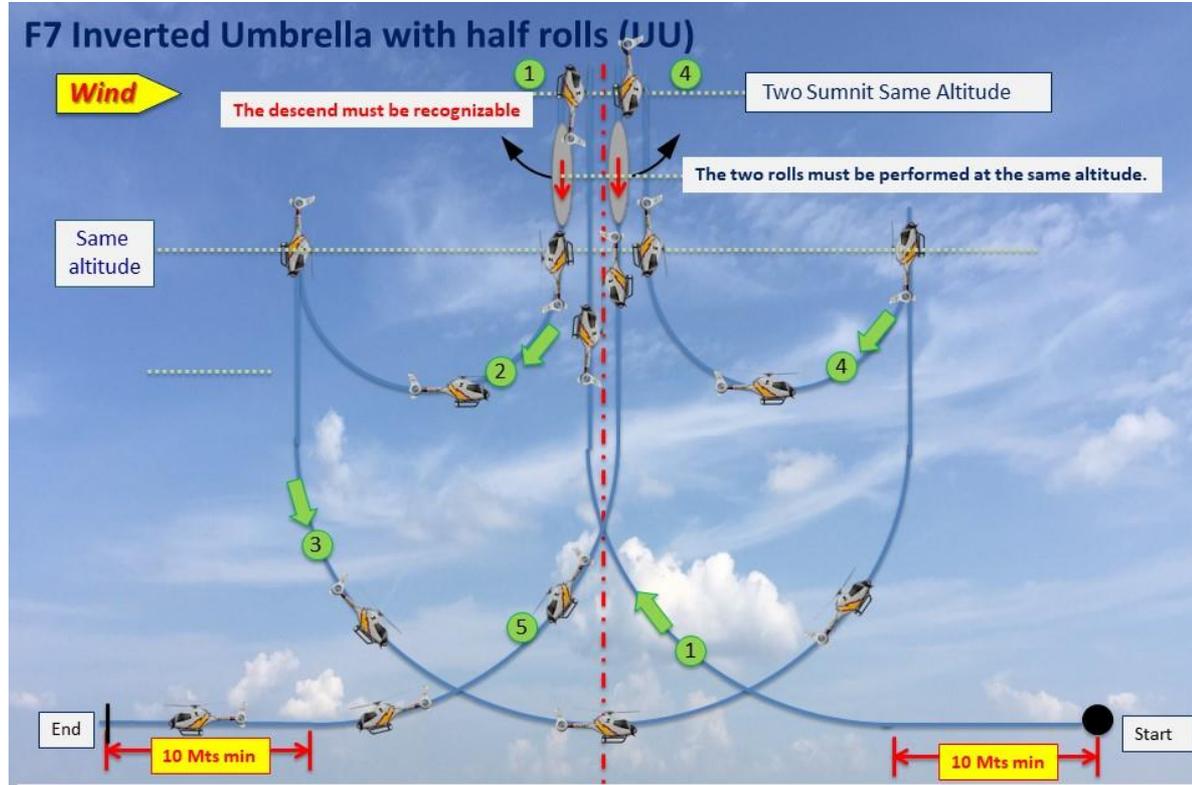


# HELP FOR TRAINERS AND PILOTS

## F7-Inverted umbrella

By Roger Lacôme





## F7: Inverted Umbrella with half Rolls (UU)

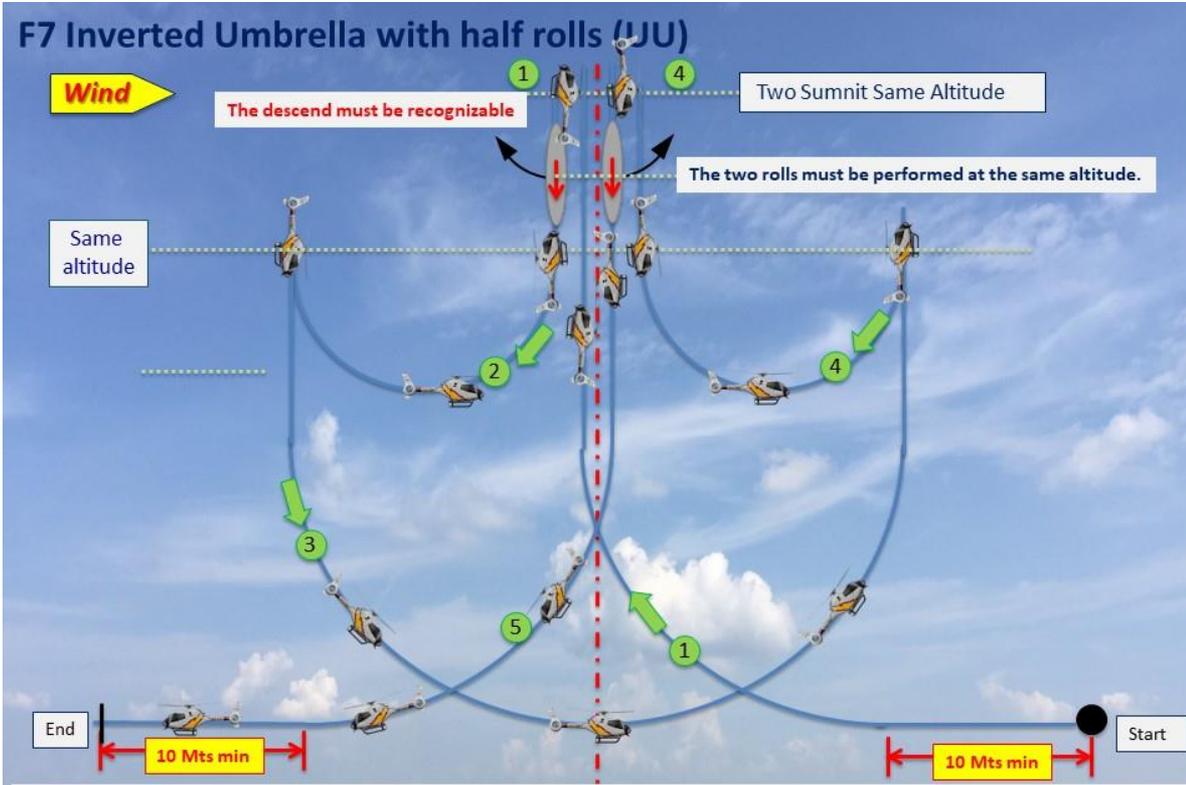
MA flies straight and level for a minimum of 10m and pulls up into a vertical ascent on center line.

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 10m at the same altitude as when entering the figure.

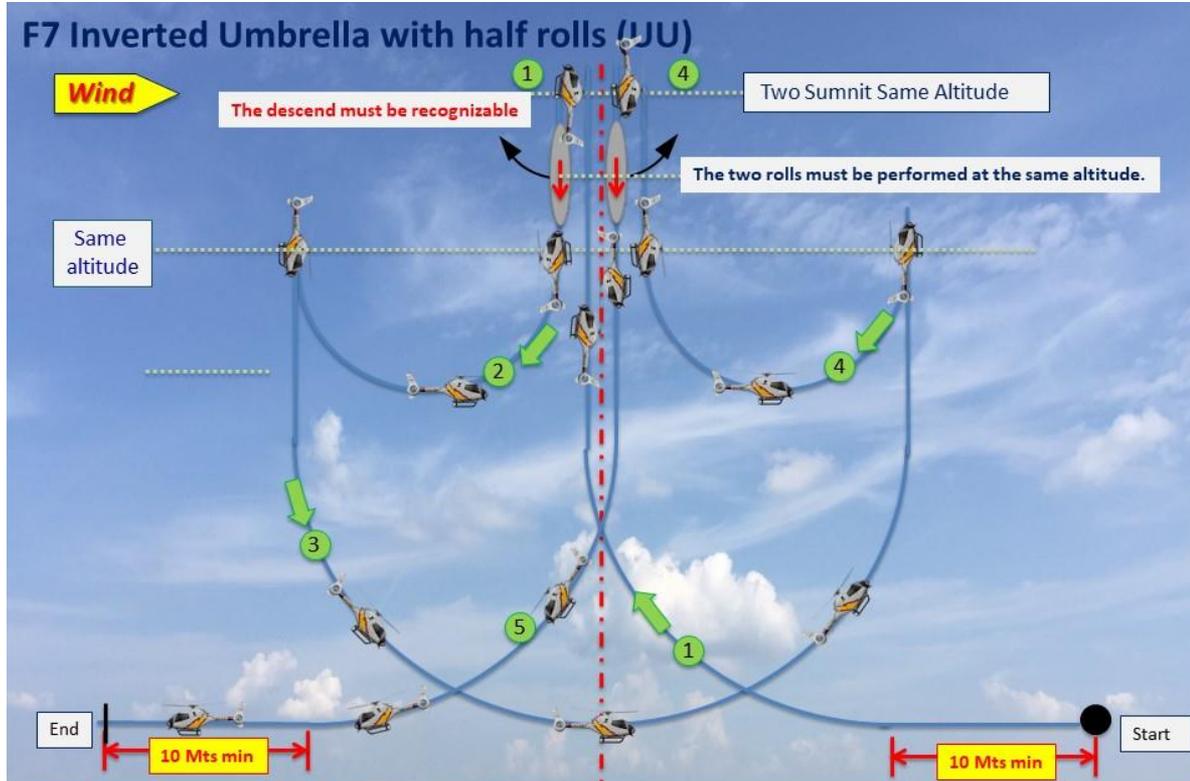


**Note 1 :** The quarter loops at the entrance and the exit of the figure and the half loop of the centered « U » must have the same radius.

**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.



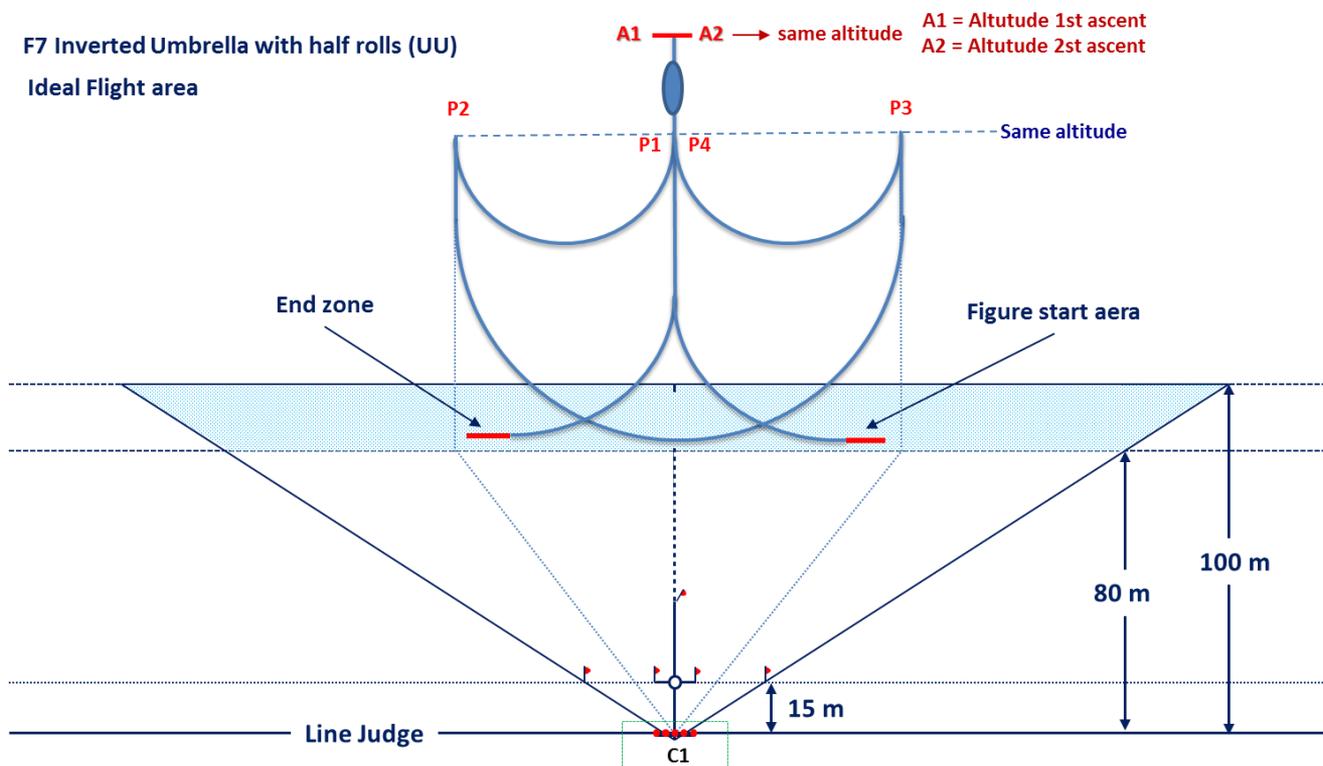
### Comments :

Some points of additional detail, the end of the ascent of the "U" must be at the same altitude as the end of the first half-loop.

The end of the ascents on the central line must be at the same altitude, it follows from this point that the half rolls must be executed at the same altitude.

Even if there is nothing specified in the description, the half rolls must be translated, but be careful not over too long because otherwise the helicopter will have gained a lot of speed by arriving at the start of the first half loop, which could be a problem!

In Figure P8, the two half-loops begin with the helicopter stopped, while here in this figure the first half-loop begins in (P1) with speed and must end in (P2) after 180 ° at a standstill, and the second is the reverse, it starts at a stop in (P3) and after 180 ° in (P4) you must ascent to the same altitude as during the first ascent, c is a real difficulty!



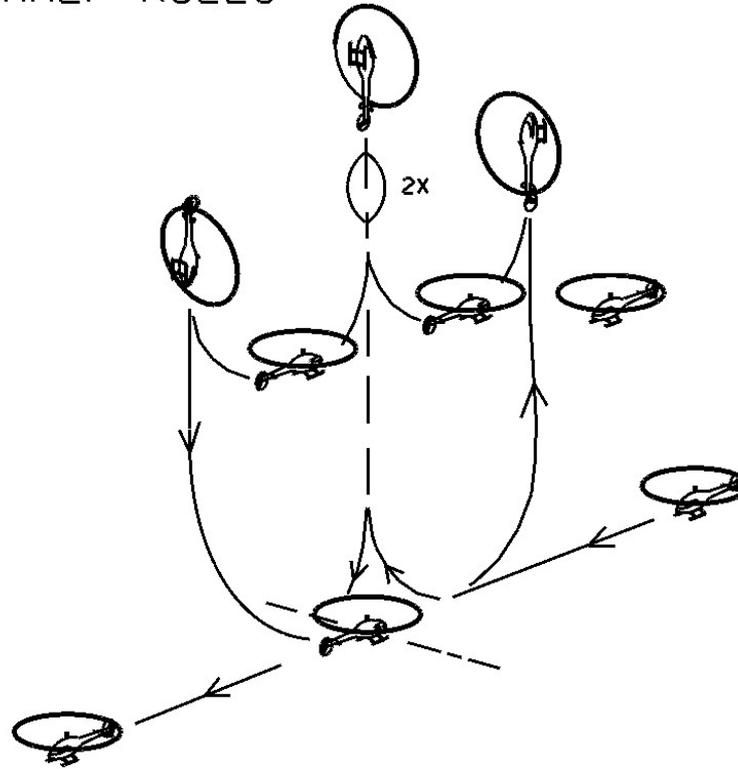
As for the P8, it is necessary that:

- The crossing points P1 / P2 / P3 and P4 are at the same altitude.
- The two branches of the "U" must be at the same distance from the center line.

So after stopping the ascent, you have to do a very small descent of 10 to 20cm, just to make it clear to the judges that the helicopter has started the descent.

Then, a priori a descent of less than a fuselage length should be enough to carry out the half roll, as this the helicopter should not take too much speed, because it must be remembered **that there should not be ascent at the end of the half-loop** and the more the translation speed is reduced during this phase the less there is a risk concerning this precise point.

F7. INVERTED UMBRELLA WITH  
HALF ROLLS



**Thanks for your interest**

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