

## Learning Nose In Hover

Nose in is one of the more important skills to learn when learning to fly. After all, if you fly the machine away from you, you're gonna have to bring it back aren't you?

Once you've learned nose-in, your flying will really take off. You'll progress a lot faster once you've learned it and you'll find yourself 'less afraid' of the helicopter, as you'll be able to deal with it in most orientations

Learning nose-in isn't that hard if you put your mind to it. Having said that, having a simulator to practise on really makes things a lot easier. I'm going to discuss two ways of learning nose-in, with a simulator and without.

### Simulator

Far and away, the best way of learning nose-in is to use a simulator. You aren't afraid to crash the machine and you make much more progress faster. Practise on the simulator each night for a week and at the weekend, get up the guts and just spin the machine around and see how long you can hold it

### Orientation Tricks

Nose-in is certainly different to tail-in, no doubt about that. However, there are a few tricks that I use to help me give the right stick inputs. These are:

- **Push towards the low wing.**  
When the helicopter is facing you the left/right cyclic controls are reversed. Therefore, if the helicopter is facing you and is leaning to the left (i.e. the left side of the rotor

disc is lower than the right), then move the left/right cyclic control to the left. As you do this, you'll notice that the left side of the rotor disc starts rising towards a level plane. Once the disc is level with both sides, release the stick input.

- **Steer the tail.**

When the helicopter is facing you, the rudder controls are also reversed. I find it easier to steer the tail. This means that if you're hovering nose-in in front of you and the tail starts to drift to the left, apply a little bit of right rudder which will start bringing the tail back into line.

## Exercises

OK, so those of you with sims will have done a whole lot of practise before you get to the field eh? Well now it's time to get busy!

Now I recommend that you fire up the helicopter and have a fly around just like normal to 'warm up' if you like. Then, once that flight is over, it's time to get serious.

There are two ways I recommend starting nose-in for real. One is to hover the helicopter to a good safe height and spin the heli around so it's facing you, or, to gradually do it by doing figure eights.

## Spin and hold

This is the way I learned. Move the helicopter out a safe distance from you (maybe 10 meters or so). Then, once you're there, slowly climb until the helicopter is about 10 meters high. Hold the helicopter in a hover. When you're ready, use the rudder to make the helicopter slowly turn until it is nose in to you.

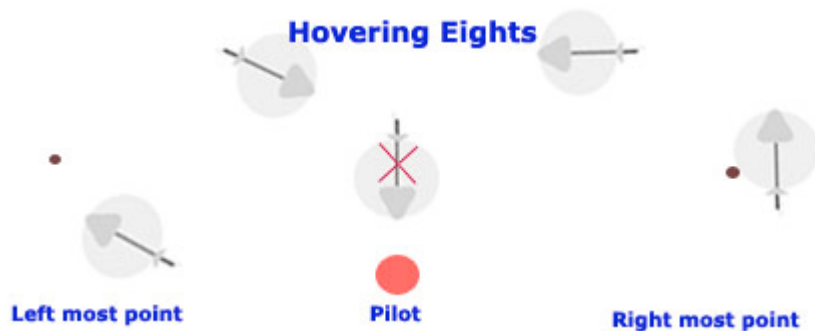
*If you have a heading hold gyro, it's a good idea to do this in heading hold mode. That way you can concentrate on just the cyclic controls and not worry about the tail coming out of line. Then once you have the cyclic controls sorted, learn the rudder controls.*

Try and hold it as long as you can, but if you feel yourself starting to lose it, make your escape route more collective as you feed in rudder to bring the helicopter tail in again.

Gradually, you'll find yourself able to hold the helicopter longer and longer. When you get more confident, start decreasing the altitude and bringing it closer.

### Figure Eights

How you say? Well, what you can do is start doing more perfect circles on each side of the figure eight. As each side becomes more circular, as the helicopter passes over the middle point, the helicopter will be more and more nose-in to you. Start out doing normal figure eights as practised earlier, as you become more confident, steer the nose around so it becomes more nose-in to you.



*See that the helicopter now moves around the points instead of over them. After passing around each point, the helicopter crosses the landing pad, as you become more confident, gradually bring the nose around until it is eventually nose in.*

Learning nose-in through figure eights is a little harder than the 'spin and hold' routine I used to learn. However, it teaches you

better orientation as you fly the transition between tail in and nose-in. With the 'spin and hold' routine, you learn tail in and nose in, but nothing in between.

It's up to you which one you choose, but it is important to learn nose in, it will rapidly develop your flying abilities!