

Helicopter Recipe for Success

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After much hoopla and fanfare along with some well intended coaxing the idea is beginning to float around your mind that maybe trying something new would be a welcome challenge to the same old weekend routine, and what if this whole helicopter thing isn't a mysterious evil forces at play vying to consume the life force out of your very existence? Sorry – I got caught up in my own monologue.

But maybe you've been thinking about trying your hand at flying a helicopter, and just not sure how to really go about it, or what's needed to get started? First off rest assured we're here to help you out, but until you don't actually get on the bicycle yourself, you'll never learn how to ride it no matter how much research you do on the topic, you just have to get on, and fall a few times to succeed – sorry but that's just the truth of the matter. Acquiring a skill involves practicing the craft until you hone your ability to perform it well, and even then there's always room for improvement. And so it goes with learning to fly a model helicopter as well. However before you even get your first heli; it's becoming more and more advantageous to start off with the basics on a simulator.

Yes it's hard at first with a simulator too, but let's do the math. A low end mid size starter helicopter will be around \$1,500-\$1,800, and you can expect to crash at least a dozen times, so let's average it out to about \$200 per crash on repair cost. That puts you at an additional \$2,400, and the frustration level is now sky-high by this time. This is what breaks some guys, and they call it quits selling all their stuff dirt cheap cursing the very day they began, and giving you the finger if you mention a helicopter to them. Now let's go back to the simulator and start there, and if you tell me you don't have a computer, my answer to that is – we stopped living in caves a long time ago. It's the twenty first freaking century man, what do you mean you don't have a computer? Get one!

A simulator is roughly about \$300, and from my experience the feel of it in respects to a live helicopter is very close to the real thing. The nice thing about the virtual realm is the magic red button, crash after crash, you hit the button and a new machine pops up just like the one before and it doesn't cost you a dime! But you do need a game plan to make the most out of your simulator time, and here's the goal you should try to achieve – don't crash!

Seriously and with all kidding aside, flying a helicopter whether for real or with your simulator is like trying to balance a small metal ball on a flat piece of board held in your hands, and the trick is to not let the ball fall off the board. The faster the ball moves, the bigger the tilt or angle you need to give the board to stop it from rolling, or to get it move slowly you angle it slightly, and then lift in the direction it's going to stop it from rolling. Same thing with a helicopter, once it gets moving forward, you pull back in the opposite direction to stop its forward movement.

Unfortunately when learning to fly a helicopter you start with the most difficult thing first, hovering (for the average guy it takes about 2-4 weeks to learn how). After you learned how to hover, it gets easier and easier

to advance. The orientation or direction of the helicopter in learning how to hover is also a big factor as well. Therefore begin with tail in first to mimic the control response of your radio. This way when you push up on the transmitter elevator stick the helicopter moves forward, and when you pull back on the elevator stick the helicopter moves backwards. With either one of these two movements of tilting the helicopter forward or backwards, it tends to drop in height. So some collective is needed to be given at the same time, collective is on the transmitter throttle stick, and both work together (collective/throttle). Collective refers to main blade pitch/angle change, the bigger the pitch/angle change given, the more drag the main blades will produce, thus more engine power is required to overcome the drag.

Now we have the helicopter moving forward and backwards and adding some collective at the same time to maintain height. However the helicopter is not on a rail, it moves from side to side as well, so right aileron stick will tilt the helicopter to the right and to stop its movement, left aileron stick is required. With one action a counter action is needed, and with whichever control input that's given, collective management is necessary to keep the helicopter altitude in check. Then you also have the yaw or nose direction to deal with. Right rudder stick moves the nose of the helicopter to the right, and left rudder stick to the left, but with the rudder you don't need to give it counter acting movements. With today's heading hold gyros once you stop giving radio control inputs to the rudder, the gyro will hold the nose of the helicopter in whichever position left in.

There you have it, I just told you how to hover, does that mean you can actually go and do it just because it was explained? NO – you have to practice to acquire the skill for yourself. Once you'll gained the skill to tail-in hover, you'll need to learn how to nose-in hover, and this is even a bigger challenge because the radio control inputs given appear to be reversed making the helicopter look like it's doing the opposite of what you want it to do. So that takes another 2-4 weeks to master. Once both orientation hover (tail-in/nose-in) have been mastered, this now becomes the backbone of what's to follow, forward flying, figure eights, loops, rolls, and everything else.

The good news is that after you've learned nose-in hovering, it gets easier and quicker to learn new moves to the point you can make your helicopter dance. But we now face a new problem, all this flying up to this point has been in your simulator, and you probably lost count of how many times you've hit the reset button by now, my guess would put it at about a hundred times. Do you remember what our average repair cost mentioned above was, yep \$200 per crash to repair, let's figure this one out. $\$200.00 \times 100 = \$20,000.00$ can you now see the value of a simulator?

But you did it; you learned how to fly a helicopter in your simulator and for minimal cost. Does that mean you can now get a real helicopter and do all the craziness that you do in your simulator in real life? NO – you try it and you'll crash your machine on the very first attempt. Why is that? As good and helpful as a simulator is, it's a two dimensional realm, and we fly our aircrafts (either airplane or helicopter) by line of sight judging height, speed and distance. The good news is transitioning from a two dimensional world to a three dimensional one (real life) won't take as long to achieve, especially if you get some trainer box time with a skilled instructor.

You learned the mechanics to fly a helicopter in your simulator, so all it will take for your brain to adjust to the new environment is to see it a few times in the real world to get it seared in your head. You can do it without the instructor connected via the trainer box, but that just takes a little longer. So if an instructor is available don't hesitate to take advantage of this learning medium as well. I hear it all the time from the guys at the field *"if I could only do half of the things I do in the simulator, I'd be a happy with that"* actually you can, all you need is some confidence building time with someone who's skills are a little more advanced than yours to recover your helicopter should you get into a moment of disorientation to speed up your progress, and again it only takes a few tries. I've seen some guys struggle for weeks to get a particular maneuver which they can do without a problem on the simulator, but for some reason can't do in the real world. I then get them hooked up to the trainer box, have them try it a few times, and bam, after three or four tries, I got a grown man jumping up and down acting like a littler school girl standing next to me from the excitement of success (don't let that bother you, they called me Sally a long time ago when I was first learning).

There you have it, your recipe for success is:

1. Simulator time
2. Transition to real flying
3. Instructor training

You don't need to do it the hard way; yes it's challenging, and quite difficult, but not impossible. If you've been thinking about flying helicopters, talk to the helicopter guys at the field, see them flying around, and you're sure to see every skill level at the field, and more than likely most of them will point you towards the advanced guys that can assist you in your attempts to fly.

So far all we've been discussing is flying, and that's the idea. There's a whole lot to learn about helicopters that's not flying related, but relates to getting your machine flying, and you will need to learn these topics as well. But for now just concentrate on flying only. After all do you need to become an auto mechanic to drive a car?

Everything and anything can be learned, explained, taught, or acquired with time and experience, so don't feel like you need to understand everything helicopter related upfront to learn how to fly. Here's a little exercise I want you to try after you finish reading this article.

Write down the following 100 times:

1. I will learn how to fly a helicopter.
2. I will learn how to fly a helicopter.
3. I will learn how to fly a helicopter.
4. I will learn how to fly a helicopter.
5. I will learn how to fly a helicopter.

See you at the field – Gus.