

SECTION II

Primary Flight Training

(Simulator)



Practice Tips
Tail-in Hover



Maneuvering & Piro



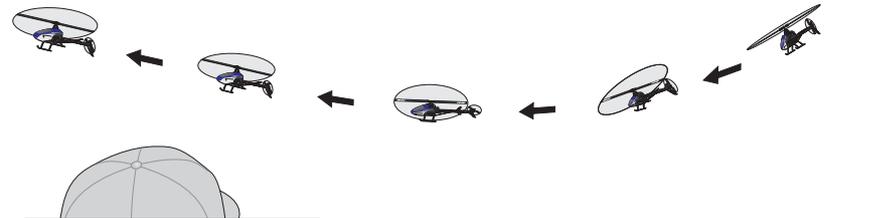
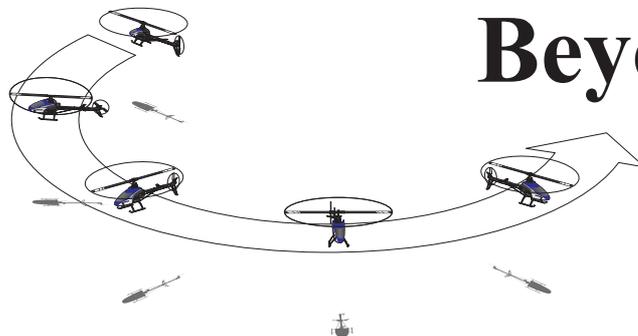
Nose-in Hover



Procedure Turns



Beyond Basics



Helicopter Primary Flight Training Introduction

The following pages outline a primary flight training practice agenda based on the timeless crawl-walk-run approach used to produce maximum results in the shortest amount of time. It's also presumed that these lessons will be practiced on a simulator prior to flying in the real world. With seemingly nothing at stake flying a sim, you may be tempted to rush through the initial crawl-walk stages to get to more exciting maneuvers, however, keep in mind that under real world pressure you'll revert to whatever techniques you had been practicing beforehand. Thus, if the purpose of sim training is to better prepare for real world success, it is imperative that your sim practice follow the same structure that you intend to follow in the real world.



Veteran pilots invested in the trial-and-error approach will often downplay preparation (book study) by claiming that the only way to learn is in the air burning lots of fuel/electricity, but nothing could be further from the truth; Practice always progresses more smoothly when a pilot is well prepared, a.k.a., the quality over quantity approach. Pilots also retain more between lessons and you'll even discover that you see and hear better when you know what to expect. In case anyone thinks that structured practice might take the fun out of flying, the fact is, pilots who are doing well and making progress always have more fun than those who are merely burning time.

Your odds of success are further increased by picking a flying field in the sim that resembles where you intend to fly so there's one less thing to think about when you fly in the real world (even if it's just a psychological effect). The point is, even if it only took 1-2% of your brain power to adjust to different looking surroundings when you transition into the real world, that's 1-2% less that you're able to devote to flying your best. It also helps to use the radio you'll be flying with and pick a helicopter in the sim similar to the type you intend to fly in the real world (unless your simulator resolution is not the best and you need to choose a larger helicopter to improve visibility).

In some ways the sterile world of the simulator tends to make flying a little easier than it is in the real world, however, even the best resolution in a sim is not as good as the real world, so seeing the heli in the sim is more challenging. Since vision plays such an important roll in heli flying, you can take confidence in knowing that if you can do it in the simulator, you will probably find real world flying to be a little easier simply because you can see better.

Flying Site and Effective Practice Time Management



The flying site that you select (sim and real world) should be flat and free of obstacles. A helicopter can cover a lot of airspace when you start maneuvering, therefore choose an area that is larger than you think you'll actually need to be safe. Keep also in mind that air currents moving around large obstacles can prove disruptive to small and moderate size helis, so avoid flying in the vicinity of tree lines and buildings unless the air is perfectly still.

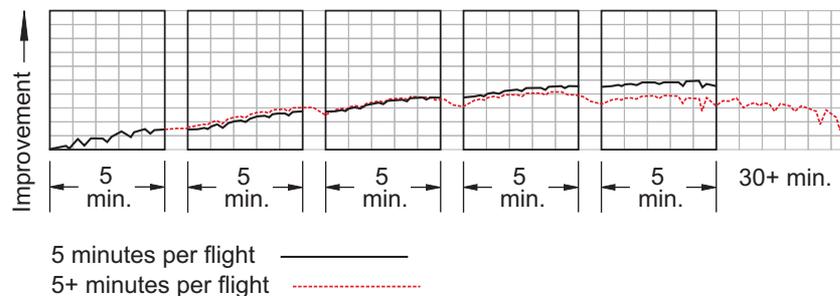
Regarding whether to train off of grass or concrete, both have their advantages and disadvantages: Grass provides some cushion during rough landings whereas concrete offers none. On the other hand, a helicopter's landing skids will tend to slide more easily across concrete if the heli is drifting sideways at touchdown, whereas grass will tend to snag the skids and tip the heli onto its side if the touchdown isn't perfectly vertical. All things considered, because of the potential for greater damage on concrete, learning to fly off of more forgiving grass using wide-stance training gear to reduce the chances of tipping over is likely the best route to go until you've mastered landings.

Many factors go into how long a person can practice an activity as intense as helicopter flying and remain productive, but as a rule, practice flights should be limited to no more than 4 to 5 minutes and total no more than a half hour per session to stay within performance optimums. Extending practice beyond these limits increases the likelihood of burnout leading to sloppier flying and bigger mistakes. Over-practicing can also leave a pilot with a diminished impression of his overall accomplishments that translates into less confidence going into the next practice session. Remember, all your sim time counts toward how you'll fly in the real world, and continuing to practice after no longer making progress can ingrain sloppy habits that will surface in the real world, especially under pressure. In short, the best results are achieved as the quality sessions add up, not by marathon practice sessions.



Wide-stance training gear is a great investment that will pay for itself countless times.

4-5 minute flights is the optimal amount of time to finish while still performing your best and thus setting a good tone for the next flight. Up to 30 minutes per sim session is the most productive amount of practice before pilots typically start becoming sloppy or overloaded.



Note: Pilots who practice beyond the effective 5 and 30 min. time frames often end up thinking that getting better at fixing mistakes is the key to better flying, versus those who replace mistakes with proper execution by adhering to a quality over quantity approach.