



www.HelicopterGround.com

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Private Pilot Helicopter Ground School

Frequently Asked Questions for Initial Training

Starting a new section for many of the questions most people ask as beginners.

We are currently providing helicopter flight instruction in the Robinson R-44 at C65, The Plymouth Municipal Airport. Plymouth is located in North Central Indiana. We are in the city limits and we are walking distance to local hotels, restaurants, and stores. The Plymouth Municipal Airport also has 2 courtesy cars available. Members you are more than welcome to train with us here!

The Enstrom Helicopter we use for training will be here and available for flight instruction with us November 1, 2016. I will post rates for the Enstrom as soon as those rates are made available.

Current Rates as of August 2016.

R-44 with fuel \$420.00 per hour.

Instructor time \$50.00 per hour.

Block rate \$365.00 with minimum purchase of 5 hours.

[Videos](#) (8.48)

Yes, we are offering flight training here at C65. (1.26)

How many hours to solo? How many hours to get the rating? (4.01)

During My Helicopter Add On To Fixed Wing Check Ride... (3.21)

Lesson 1 Introduction to New Training May 2016

We are launching a brand new Private Pilot Ground School Section this week 5-16-16. Lessons created to take you step by step through the ground knowledge you need for the Private Pilot Rating!

[Videos](#) (5.41)

1.1 Summer 2016 off To A Phenomenal Start! (2.20)

1.2 The Helicopter Bible (3.01)

-The Helicopter Flying Handbook is the Helicopter Bible!

1.3 Know how to use the FAR/AIM manual! (5.20)

-This is a very important tip to save you headache and heartache later in your helicopter training!

Lesson 2 General Aerodynamics

[Videos](#) (12.55)

2.1 Airfoil (2.13)

2.2 Lift (2.19)

2.3 Drag (5.27)

2.4 The Lift Equation (1.51)

2.5 The 4 Forces of Flight (1.45)

-Don't overlook these basic questions! I have observed many experienced pilots screw up the simple stuff on check rides!

Lesson 3 Aerodynamics of Flight

[Videos](#) (25.46)

3.1 Translating Tendency (.46)

3.2 Pendular Action (.27)

-Pendular Action: The lateral or longitudinal oscillation of the fuselage due to its suspension from the rotor system.

3.3 Coning (1.01)

3.4 Coriolis Effect (2.31)

3.5 Gyroscopic Precession (.43)

3.6 Dissymmetry of Lift (8.23)

3.7 More Difference in Lift (2.12)

3.8 Dissymmetry of Lift Definition (1.16)

3.9 Effective Translational Lift (6.13)

3.10 Autorotation (3.34)

Lesson 4 Helicopter Flight Controls

Videos (13.10)

4.1 Cyclic & Collective Control Basics (2.49)

4.2 Anti Torque Pedals (3.21)

4.3 Learning the Control Inputs (3.29)

4.4 Example New Student Learning To Hover (3.20)

-Here is what it looks like when someone is just learning to put all the control inputs together!

4.5 Hover with One Finger (.51)

Lesson 5 Helicopter Components, Sections, and Systems

[Videos](#) (27.21)

5.1 Fuel Management for Training (13.59)

5.2 Collective Times, Flight Times, Instructor Time (13.22)

Lesson 6 Rotorcraft Flight Manual

[Videos](#) (7.07)

6.1 The Rotorcraft Flight Manual (7.07)

-You need to spend some quality time with The Rotorcraft Flight Manual for your specific aircraft, also called the PHO, The Pilot Operating Handbook. We do our best to always give you relevant information. It is

however, your duty as a Pilot in Command to know the information from your specific manual!

Lesson 7 Weight & Balance

[Videos](#) (10.20)

7.1 Weight & Balance (10.20)

Lesson 8 Helicopter Performance

[Videos](#) (33.31)

8.1 Out Of Ground Effect vs. In Ground Effect (5.07)

8.2 PERFORMANCE AND LIMITATIONS (28.24)

Lesson 9 Ground & Flight Preparations

[Videos](#) (58.58)

9.1 Preflight Procedures (13.30)

9.2 Minimum Equipment (7.56)

9.3 A.R.O.W. removing items from cockpit. (2.49)

9.4 CERTIFICATES AND DOCUMENTS (9.17)

9.5 After Landing & Securing (4.18)

9.6 AIRWORTHINESS REQUIREMENTS (7.09)

9.7 Airworthiness Requirements (7.09)

9.8 Safety In & Around Helicopters (2.12)

-Never exit the helicopter with the blades turning. Over confidence prevails in accidents. Walking into the tail rotor can be fatal.

9.9 Tail Rotor Passenger Danger!!! (3.18)

-Please put some serious thought into this as a new private pilot! I even recommend as a new private pilot, do not rush right out and start giving rides. Get some time in the aircraft alone and build your confidence. Also remember this is for non-paid rides for your friends and family. Not rides for hire!

9.10 Guarding the Collective (2.00)

-In the event you do have passengers entering or exiting the aircraft with engine running! Make sure you guard the throttle and collective as they climb in and out!

Lesson 10 Basic Flight Maneuvers

Videos (33.47)

10.1 Rules to Fly By (1.55)

10.2 Lift to Hover (6.31)

10.3 Hovering Square Pattern New 4-19-2016(8.30)

-This is a great tool for honing your helicopter hovering, pick up and set down skills. It's great for both students and instructors to measure a person's progress! Also anyone just wanting to sharpen their skills.

10.4 Hover Taxi (2.30)

10.5 AIR TAXI (1.12)

10.6 Surface Taxi (.32)

10.7 Traffic Patterns (3.53)

10.8 General Safe Rule Approach (1.51)

10.9 GO-AROUND (1.5)

10.10 Normal Crosswind & Approach (3.53)

10.11 How To: NOT fly your approach! (3.50)

Lesson 11 Advanced Flight Maneuvers

Videos (52.39)

11.1 Maximum Performance Takeoff (4.59)

11.2 Rapid Deceleration or Quick Stop (Skid View) (2.14)

11.3 Quick Stop (Slow Stop) Cockpit View (2.53)

11.4 Steep Approach (2.40)

11.5 Shallow Approach & Running/Roll-On Landing (2.01)

11.6 Slope Landings Classroom Instruction (13.51)

11.7 Slope Operations (2.23)

11.8 Confined Area Operations (15.00)

11.9 PINNACLE/PLATFORM OPERATIONS (7.58)

Lesson 12 Autorotations

[Videos](#) (42.17)

12.1 New Introduction Summer 2016(4.60)

12.2 Fly like it's going to FAIL (1.41)

-This is one we can't really stress enough. Some people fly like the engine's going to quit, some don't.

12.3 Stored Energy (Always be thinking about this) (1.12)

-If you have all 3, RPM altitude & airspeed, you're having a good day!
Have a failure without all 3 and you may be in trouble!

12.4 Key to a good Autorotation (1.16)

12.5 Straight in Autorotation (5.10)

12.6 90 Degree Autorotation (3.07)

12.7 180 Autorotation (10.27)

12.8 180 Autorotation Tips (5.00)

12.9 Hovering Autorotations (5.00)

12.10 Power Failure at Hover (2.52)

12.11 Power Failure at Altitude (2.52)

Lesson 13 Emergency Operations & Hazards

Videos (2h31.17)

13.1 Loss of Tail Rotor Effectiveness (LTE) (6.50)

-It is essential that you understand the flight conditions that can cause LTE, Loss of Tail Rotor Effectiveness!

13.2 SETTLING-WITH-POWER & General Safe Rule (7.14)

-One of the most important things you need to understand as a Helicopter Pilot today!

13.3 Settling With Power Demonstration (3.57)

13.4 SETTLING-WITH-POWER Snow Example Turbulent Air (.52)

13.5 Retreating Blade Stall (3.39)

13.6 Ground Resonance My Accident (42.44)

13.7 Dynamic Rollover Angle Is 5 to 8 Degrees (1.50)

13.8 Dynamic Rollover (3.28)

13.9 Low G Conditions (4.18)

13.10 Low Rotor RPM Recovery (4.46)

13.11 ANTI-TORQUE SYSTEM FAILURE (15.01)

13.12 Systems & Equipment Malfunctions, Part 1 (14.53)

13.13 Malfunctions, Part 2 (Pitot Static) (17.49)

13.14 Engine / Tail Rotor Failure Memory Aid (1.15)

13.15 Lost Procedures (The 5 C's) (1.09)

13.16 Is there time to handle an EMERGENCY??? (4.42)

13.17 EMERGENCY EQUIPMENT AND SURVIVAL GEAR (4.12)

13.18 Disturbed Air (4.10)

13.19 Low Voltage Light (.28)

Lesson 14 Attitude Instrument Flying

NO VIDEO AT THIS TIME.

Lesson 15 Night Operations

[Videos](#) (6.06)

15.1 NIGHT PREPARATION (6.06)

Lesson 16 Effective Aeronautical Decision Making

[Videos](#) (2.36)

16.1 Helicopter Pilot Weather Abort (2.36)

Lesson 17 Airspace

[Videos](#) (54.11)

17.1 Class G Weather Minimums for Helicopters 2016 (1.42)

17.2 NATIONAL AIRSPACE SYSTEM. (18.09)

17.3 Airspace Lesson with Holley Gardel (16.32)

17.4 Special Use Airspace Holley Gardel (14.38)

17.5 Class G Airspace (3.50)

Lesson 18 Navigation

[Videos](#) (2h3.03)

18.1 VFR Sectional Charts (19.50)

18.2 Why helicopters can get Special VFR when Sectional Chart say No SVFR (1.14)

18.3 Airport & Heliport Beacons (1.23)

18.4 PILOTAGE AND DEAD RECKONING (9.02)

18.5 RADIO COMMUNICATIONS AND ATC LIGHT SIGNALS. (42.24)

18.6 Diversion (2.28)

18.7 Light Gun Signals (.54)

18.8 AIRPORT/HELIPORT (36.33)

18.9 VFR Cruising Altitudes (.40)

18.10 CROSS-COUNTRY FLIGHT PLANNING (10.35)

Lesson 19 Weather

No. 1 Reported Helicopter Training Learning Struggle.

[Videos](#) (1h11.28)

1.1 Summer 2016 Weather Introduction (2.49)

1.2 General Weather Information (19.48)

1.3 Weather Reports & Forecast (21.03)

Weather Part 1 (6.26)

Weather Part 2 (6.04)

Weather Part 3(4.45)

Weather Part 4 (4.37)

Weather Part 5 (4.17)

Weather Part 6 (3.59)

Lesson 20 Aeromedical

[Videos](#) (10.38)

20.1 AEROMEDICAL FACTORS (10.38)

The Practical Test Standards

[Videos](#) (51.18)

1. Reference Materials & Aircraft Specific Stuff! (3.06)
2. Special Emphasis Areas (18.13)
3. Operation of Systems (6.51)
4. My Check Ride Failure! (3.09)
5. Student Check-Ride Failures (5.37)
6. Mock Check Ride with special guest (15.02)

Downloads

Available Downloads For Members

[Videos](#) (19.43)

Downloads (1.12)

Weather Services Study Guide (4.46)

NTSB 830 (.40)

-You have got to know the NTSB 830!

Captain Keller's Study Guide (7.26)

-A collaborative study guide for things that are hard to remember

Robinson Helicopters SFAR 73 (6.19)