



SPORT PILOT TRAINING SYLLABUS LESSON 4A: THE Perfect Traffic Pattern

TIME: One-hour ground and one-hour flight instruction

OBJECTIVE: Describe and Demonstrate the Perfect Traffic Pattern

Takeoff: 10 Degrees of Flap if the runway is less than 3000 feet.

Apply full power and verify engine is producing full power.

Apply right rudder as necessary and start with the ailerons turned into the wind.

Reduce the aileron input as you accelerate. Let the plane fly off the runway when it is ready. Look straight ahead.

Climb: Climb at V_x until obstacles are cleared, then lower the nose to obtain V_y and remove flaps if necessary. Climb straight ahead until reaching an altitude 300 feet less than the pattern altitude. **You must see over the nose.**

Crosswind Leg: When 300 feet below the downwind leg altitude, lower the nose to obtain $V_y + 10$ knots and turn crosswind leg. Climb at V_y on crosswind leg. When appropriate, get ready to turn onto downwind leg. You must see over the nose to see traffic entering the pattern.

Downwind Leg: Once established on downwind leg, reduce the power to half throttle, apply 10 degrees of flaps and set throttle at about 3800 rpm which will result in about 70 KIAS in level flight. Trim aircraft for level.

Abeam the numbers: When opposite the numbers, reduce power to 3600, lower the nose 10 degrees and trim for 65 KIAS. Apply 20 Degrees flap and trim for 60 KIAS. Turn on to base leg.

Base Leg: Am I too high, too low or just right...DO SOMETHING!

You should be about 500 AGL when turning final. Use this info to decide if you are too high, too low or just right. Prepare to turn final. If there was a left crosswind on takeoff, you will know have a tailwind on base and you will need to turn onto final approach early.

Final Approach: Reduce the power to 3400 RPM and trim for 60 KIAS + or- 5 kts. If you speed get below 60 add 200 hundred RPM, If your speed gets above 60 KIAS remove 200 RPM.

DFGAP: When you arrive a 200 feet AGL on final, you can no longer use a slip or mush to remove excess speed or excess altitude. You can no longer add flap and you must be lined up with the centerline.

Roundout: At the height of a truck you will apply back pressure, so you are flying level above the runway at about 10 feet.

When you can apply control inputs to achieve the results mentioned above, you are now ready to begin your GPA training.

COMPLETION STANDARDS: The lesson is completed when the student can relax and fly a proper traffic pattern.