



SPORT PILOT TRAINING SYLLABUS

LESSON 5: GPA, Ground Proximity Awareness Training

TIME: 1 hour ground instruction, 1 hour simulator, and 1 hour flight instruction

OBJECTIVE: To introduce the student to flying close to the ground until their finger nails pink up as a sign that they are beginning to relax. Once they relax their brain will work properly. Discuss energy management.

HOME STUDY: Pilot's Handbook of Aeronautical Knowledge (**PHAK**) Chapters 15 & 16 AFH Chapters 6 & 7 Read the Sport Pilot Practical Test Standards.

Review lesson items: Traffic pattern, slips, S-turns, mushing, medium banked turns.

New lesson items: Transition from power on approach to level flying along the runway. Once established on final approach with 20 degrees of flap and 3400 RPM, maintain your inertia by keeping the aircraft in a nose down attitude. A speed of 60 KIAS +5/-0 is the standard. If below 60 KIAS add power, if above 65 KIAS reduce the throttle. Teach extra energy from an airspeed above 65 KIAS can be used to gain altitude if you are below the desired glide path. Transition to level flight at the height of about a moving truck, about ten feet. Fly down the right side of the runway, then fly to the centerline, then fly to the left side of the runway. On the next approach do the same exercise but this time keep the nose straight down the centerline and use a side slip to adjust the aircraft's position. Always make the go-around with at least two thousand feet of clearance from all obstacles. Make the same approach and this time, at 5 feet above the runway, the height of a car, the student will transition to level flight. **THIS IS THE EYE TRANSITION POINT.** At the eye transition point, the student will now look down the centerline and to the end of the runway. Apply controls as needed to remove the crab. The nose must track directly down the runway centerline. Make the go-around with at least two thousand feet of clearance from all obstacles.

COMPLETION STANDARDS: The lesson is completed when the student can fly relaxed at 5 feet over the runway and maneuver the aircraft from one side of the runway to the other side. The student should understand if they are below the VASI and above 65 KIAS, they should convert the extra energy into altitude by simply raising the nose. They do not need to add power to climb, just convert the extra energy associated with a speed above 65 KIAS into altitude.