

25 hours second day©

The next day we made the same flight on which I actually taught the lesson, prepared the student, rehearsed the radio work, and came back with an enthused student who then quit flying. I have not initiated any contact to find out just why.

I met the student at the flight line. The plane was late in getting back. I walked and talked the student through all of the flight maneuvers that we had done the previous day. I discussed and showed the student a new way to move the trim by the use of the fore finger tip instead of by pinching the trim wheel. I explained the advantage of making 30-degree banks as requiring a lower level of attention from any other bank. We would later do a demonstration series of left and right level 30-degree banked 360s hands off.

We walked through the pattern of the uncontrolled airport and rehearsed the radio procedures. Everything is being tape recorded. We walked through the course reversal process and how the sum of the digits of any given heading would equal the sum of the digits at the 90, 180, and 270 degree points of the heading indicator. If the reader does not understand this look carefully at a heading indicator with any number set to the top. When the plane returned, we reviewed how the trim wheel would be moved with the finger tip. The same finger and tip would be used to index the throttle movements and settings.

We reviewed the clearing process and how making the process both visual and verbal was important and how the best way to see on repeated no-pause turns was to always clear to the raised wing. We would level off by first moving the trim, holding heading and altitude while the plane accelerated to 100 knots and then reducing the power to 2450. We would avoid all altitudes of even thousands or five hundreds when below 3000 feet AGL. We would be using the half-angle bank recovery method until reasonable accuracy was acquired. We would practice the course reversal before over-flying the uncontrolled airport.

The two different slow-flight procedures were done as dry runs. From level cruise we would reduce the power to 1700, which decreased to 1500 during deceleration, hold heading and altitude while trimming all the way to the stop for sixty knots before adding power to 1800 rpm. 30 degree banks could be made at a level altitude with the addition of 100 rpm. Recovery was made with the use of full power and the rapid removal of trim while holding heading and altitude. Power was reduced to 2450 on reaching 100 knots and fine trim used for hands-off. Full flap slow flight was to be accomplished by first reducing power to 1500 while holding heading and altitude until airspeed reached the white arc. At that time full flaps would be applied while holding heading and altitude. With full flaps, full power would be applied and one or more turns of trim would be used to maintain 50 knots hands-off. Recovery would be done by applying full power, milking off flaps while maintaining heading and altitude until V_y was reached. At V_y the flaps would be fully raised and trim pressure removed while climb at V_y was maintained.

I proceeded to tape record my recommendations as to how the preflight process could be expedited and time reduced to ten or 15 minutes. The ignition key was placed on the fuel selector pedestal instead in the ignition. The flaps were only lowered partially, as a battery saving procedure, while still allowing full inspection of the flap mechanism. We checked the aircraft with a minimum of retraced movements. The left wing chain was removed first. The wing tiedown chains would laid out so that

they would show where the tires should be when the plane was returned. Movement and security of the wing controls and attachment points are visually confirmed. Left fuel sump is drained and sump cup placed on right seat where it will be available for draining the right wing sump and engine sump as required. The fuel caps are removed, fuel level confirmed by touch and the caps secured and aligned with airflow. Shimmy damper is checked for security and the chrome strut wiped clean of abrasive dirt. Alternator belt is checked for proper tension by turning belt 90 degrees between two fingers. This may also be done by getting 1/2 inch flexing with moderate finger pressure.

I recorded a checklist start procedure that was more specific for the aircraft and the flight as the student proceeded through the start procedure. Student will bring checklist in scratch form so that it can be amended. There will be at least five revisions before the list is ready for lamination. The final checklist will be specific for the aircraft and the pilot.

The student wanted to get the ATIS before start to save hobbess time. I went along with that but demonstrated how all the essential information could be logically placed in the four quadrants of a + sign. I stressed that it was most economical to learn to listen well enough to get the ATIS the first time. Prior to entering the plane I had the student make a guess as to the wind direction and velocity by reading the wind sock. We started the engine by using my taped checklist and priming only with two pumps of the throttle and using the fore finger to set 1/8 inch of throttle for 800 rpm. Next we rehearsed the radio call until it came out without punctuation. This time the active runway was familiar to the student but we practiced the call to go to the smaller runway. Student had never taken off or landed on a smaller runway. My question was, "Would you rather use the small runways with an instructor or by yourself?" I assisted in the taxi route but insisted that the lines be followed using no brakes and only the spring loading coming off the rudder pedals and plenty of anticipation. Taxiing went beautifully. Yoke position for wind was uncertain. That will come with time. We are #2 in the runup area but we finish the control check and runup first so I advised ground that we will taxi to the hold bar and contact tower there.

I had gone over some study sheets with the student about departures one of which was the 270. The student was curious about the 270 so during the runup time I had rehearsed and diagrammed the 270 departure that we would be making. We had made a point to face the final approach corridor while making our call and request to the tower. Everything went as planned.

While waiting for the airplane to get back, I had described the Dutch roll as to training purpose and relation to the crosswind landing. As we climbed out I demonstrated the roll with the student on the controls with me. The rolls were continued by the student with me advising for rudder application and anticipation. We did this the first time for only a couple of minutes.

The leveling off began as the day before but I intervened and had the nose leveled and trim for level applied at the same time. Power was not reduced to 2450 until reaching 100 knots. Surprise! The plane is in level flight, hands off.

After the second or third try, the turns were made with rudder sufficient to keep the ball centered. I coached the recovery lead of half the bank angle. Student occasionally forgot to clear or to verbalize the

clearing. As part of this review I had the student enter a 30-degree bank put in two buttons of trim and then fly using only the rudder. We did this in two 360s both left and right. Surprise, it works.

As the day before, we went through slow flight with and without flaps. This time the student was coached progressively through the use of trim and power. My comment the day before was that the student was working too hard in flying the airplane. The reaction to the slow flight today was that everything seemed so easy. We did practice the full flap slow flight recovery until it was right. This is a necessary go-around skill. No time for stalls, today.

Again we simulated landings, this time using the runway direction most likely at the uncontrolled airport near by. On the previous day I had noticed that the student used the four count system for getting 10 degrees of flap. This works quite well. The student, however, watched the flaps go down. On these simulations I had the student watch the over the nose to maintain heading, altitude and/or airspeed. Again, things were "easy".

I did an area survey of identifiable reference points and the student did quite well. Part of the lesson in this instance was to have the student locate a specific small city. Student couldn't. The reasons? We were right over it. Good lesson. I asked the student to point to our destination airport. Wrong by 90 degrees.

We rehearsed, the radio calls for unicom and traffic from our present position and for our arrival over the airport. Student had been to this airport according to the logbook five or six times. Surprise, student was unaware that airport had a windsock and its location. Heading there after our initial radio call to traffic, I remembered that we had not practiced course reversals. Since I had planned our arrival to take us over the field outbound on the 45 we were well placed to practice the reversals. We did two successive, one to the right and the other to the left. The student knowing how to do the course reversal makes the process of safely determining the active runway from over the field and the proper 45 entry "easy".

Student missed a radio call by an aircraft giving away the active. I had student query the frequency. Frequency quite active from other fields but verification of active finally made so that student could plan arrival. Flew outbound on the 45 made the course reversal and talked the student through the previously rehearsed radio calls. Coached student through the prelanding, power reduction, trim, flaps, and airspeed through the landing. Cleared the runway, taxied back, and coached student through clearing turn and departure call. Student pleased with landing. Keeps asking, Did I make the landing? Did you help?" (Well, maybe.)

On the way back I pointed out the various common call-up points in common use. The more distant ones are used by high-speed aircraft to give ATC planning time. We rehearsed the radio, call but had to write down the part that said, "...request right base will report two-mile base" (No punctuation in radio calls.) Tower responded, "Approved as requested" A winner! Student pleased. This was the same reporting point used yesterday with a different runway.

Another aircraft was arriving as we were so by happenstance we were asked to widen out and land on the small runway. Student exhausted but pleasantly satisfied with the flight. Instructor tired too...forgot to

change to ground frequency when told to follow another aircraft into parking area. Student tries, but fails to make a smooth return to the parking place. Next time. Total time 1.3.

Pilot who had returned plane late for us had dropped his wallet under the right seat. I called the pilot while the student tied the plane down. We went to the parking lot and waited for him to arrive. I went over a printout of material that would allow the student to understand and improve the greatest weakness that I had observed. Radio procedures and area familiarization. If you don't know where you are, you won't know what to say.