Standard High Altitude Maneuvers

STANDARD HIGH ALTITUDE MANEUVERS: The high altitude maneuvers are all listed below. I also explain the use of my attitude system to perform them which makes the maneuvers pretty easy to do. Your instructor should cover all the instruments except the airspeed indicator so your brain doesn't start making your eyes look in the cockpit. I have put all of my procedures for these maneuvers on one document, it is below.

High Altitude Procedures

Steep Turns

STEEP TURNS: A steep turn is exactly what it sounds like; a steep turn. You will be banking the aircraft up to 45 degrees and will use one reference for this maneuver, the horizon (don't look inside at the fake one). From the reading on forces, acting in a turning aircraft, you should have learned that the vertical component of lift will go away when you turn the aircraft, therefore the nose of the aircraft will fall. You will need to increase the back pressure on the control column in order to maintain the vertical component of lift. You will need to add the backpressure as you begin to bank the aircraft. Once the bank is established, watch the horizon. If the nose is falling below the horizon, roll out of the bank about 5 degrees. As you roll out, slightly increase the backpressure and then roll back into the bank. If the nose is climbing above the horizon, just increase the bank until the nose is level with the horizon. When you want to roll out on a heading, begin the

rollout at half your bank angle. I have made up a separate document on this and how I explain it.

Steep Turns

Many Instructors will just allow you to pull back on the flight controls when you are loosing altitude. You will need to do a little of this, but you don't want to use the elevator as the only means. You need to change the vertical component of lift to make this maneuver smooth. If you just use the elevators on this maneuver you will just add extra unwanted load factors on the airplane.

Another way you can tell if you are climbing or descending is to listen to the engine. If you hear the engine speeding up, your nose is going down. If you hear the engine slowing down, then the plane is climbing.

Use of Flaps

USE OF FLAPS: When it comes to the use of flaps, I just have a few things for you to remember. You should practice the extension and retraction of the flaps in level flight, climbs and descents. Following are my simple rules:

1: FLAPS UP – NOSE UP: When you bring the flaps up you will have to hold the nose of the plane up (add backpressure on the control column)

2: FLAPS DOWN – NOSE DOWN: When you extend the flaps you will have to add forward pressure on the control column. So you will have to hold the nose down.

3: RETRACTING FLAPS: NEVER RETRACT THE FLAPS MORE THAN 10 DEGREES AT A TIME.

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