High-Altitude Maneuvers Procedures

Below are my procedures for all the high-altitude maneuvers. You should sit in a chair and chair-fly. You will want to memorize all of these and be able to recite them even after a long night out. The procedures may vary, depending on the aircraft you use. Your instructor should have a printout of procedures for you, also. Memorize these and never forget them because the same flow check is used for the emergency procedures.

Minimum Controllable Airspeed (slow flight)

1. Get the aircraft aligned with the reference point.

2. Fuel: On

3. Flaps: Up

4. Mixture: Rich

5. Power:1800 RPM, approximately. Listen for your descent power setting; you may want it slightly less.

6. Carburetor Heat: On

7. Magnetos: Check on both

8. Primer: Locked

9. Airspeed within the White Arc: Flaps to 30 degrees

10. Pitch for Airspeed: Remember not to increase your pitch until your airspeed gets to glide speed. If you increase the pitch before this airspeed, you will start to climb. Once you get below glide speed, start pitching the nose of the plane up for your airspeed.

11. Power: As required. You will find that 2100 RPM should be about the right amount of power. This again is just a reference number.

Recovery: During the recovery, you will tend to gain altitude unless you understand that the angle of attack must be decreased once the power is increased. You want to trim the aircraft after each ten degrees of flaps are retracted. This will make life much easier for you.

1. **Power:** Full
2. **Carburetor Heat:** Off
3. **Nose:** Hold on the horizon
4. **Flaps:** Retract ten degrees at a time, then trim
5. **Resume Normal Flight**

Power-On Stalls

First, line the nose of the airplane on your reference point. Then, make an imaginary line straight up. Find a cloud that will become your reference point after you start to bring the nose up.

1. Fuel: On
2. Flaps: Up
3. Mixture: Rich
4. Power: 1500 RPM
5. Carburetor Heat: Off
6. Magnetos: Check on
7. Primer: Locket
8. Pitch Up for Airspeed To Slow Down
9. When Airspeed Reaches 65 (or Takeoff Speed) KIAS: Power full and pitch up gently
10. Stall

Recover: The recovery is simple. When the plane stalls, the nose will drop. When it begins to drop, you will need to increase forward elevator to maintain the pitch attitude for a cruise descent. As the airspeed begins to build up, the nose will want to come up again. You do not want this to happen because it will result in a secondary stall. Just hold the nose down for about a second or so. Then begin to bring the nose just up to climb attitude. It should take about six seconds from the stall to the nose-up attitude. Just count in your mind: stall, 2, 3, 4, 5, 6.

1. Nose: Just below the horizon: 2, 3, 4, 5
2. Pitch: Climb attitude

Power-Off Stalls

Line the nose up on a point, and find a reference point in the sky.

1. **Fuel:** On
2. **Flaps:** Up
3. **Mixture:** Rich
4. **Power:** 1500 RPM or so; just listen for your descent-to-land power setting
5. **Carburetor Heat:** On
6. **Magnetos:** Check
7. **Primer:** Locked
8. **When the Airspeed Is in the White Arc:** Flaps to 30 degrees
9. **Nose:** Above the horizon
10. **Stall**

Recovery: I use the same method of counting for the recovery. The only difference is the adding of power and the retracting of flaps. Remember that you will have to pull back on the control column to maintain the same angle of attack. This is why you don't want to start retracting the flaps until you have started to gain some airspeed.

1. **Nose:** Just below the horizon
2. **Power:** Full
3. **Carburetor Heat:** Off
4. **Nose:** Descent attitude
5. **Flaps:** First ten degrees up as you begin to bring the nose up
6. **Airspeed:** Climb attitude will give you approximately Vy
7. **Flaps:** Up ten degrees at a time

You will want to use the same count as you did on the power on stall: stall, 2,3,4,5, climb attitude.

Forward Slips

Procedure for Forward Slips

1. Power: Back to idle

2. Carburetor Heat: On

3. Airspeed in the White Arc: Flaps to 30 degrees (152 only)

4. Full Rudder to One Side, Opposite Aileron. Use aileron to line you up with the reference point.

4. Nose Double Descent Attitude

Flap 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. Never Retract the Flaps More than Ten Degrees at a Time