Unusual Attitudes 101

Twenty four pages have passed on your favorite airplane calendar since your last Biennal Flight review. You arrive at the airport and the receptionist says, "The Colonel" wants to see you, Go on back to his office."

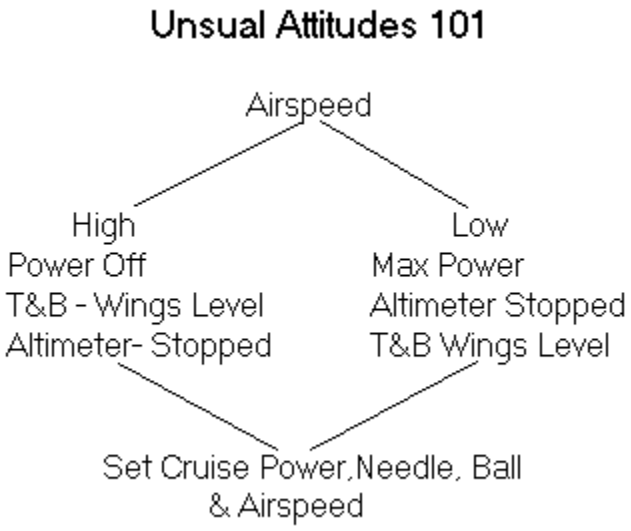
The Colonel is a 70 year old World War II bomber pilot who retired and moved home to run the FBO in your town. He left his hearing in a B-25. That really doesn't matter because he doesn't listen much anyway. He tells you to sit down. "The instructor is on a charter and rather than reschedule your BFR , I thought we should go fly together." You cringe. The last time you flew with the Colonel was your IFR checkride several years ago and that was a rough ride at best. You were prepared to impress the young instructor with your new Garmin 430. You were certain that he was far more interested in playing with the Garmin than your flying skills. You planned to fly around for an hour and show him your new toy. Instead the Colonel asks, "Ever have a vacuum pump quit?" "Yessir!" you respond, but he is not listening. "Today we are gonna talk about unusual attitudes."

If most of us went up today with a hood, put our head down, when the instructor said look up, our eyes would immediately go to the Artificial Horizon. How do you think most unusual attitude situations arise? Vacuum pump failure. Why look at the horizon? It got us in this mess. Where should we look?

The Colonel learned in the backseat of a T-6 the first place to look is the Airspeed. The airspeed indicator is a fork in the road. If the speed is low set full power. And look next at the altimeter.

Stop the altimeter needle with pitch. (More on this later) Next look to the turn coodinator to level the wings. Finally set the power to cruise and fly with needle ball and airspeed.

The other fork in the road goes like this. If the speed is high set idle power. Look to the turn coordinator to level the wings. Next look to the altimeter and stop the needle with pitch. Finally set the power to cruise and fly with the needle ball and airspeed.



The military taught a very simple unusual attitude drill. It goes like this.

Unusual Attitudes 101

#1 Airspeed- Speeds high go to "A", Speeds slow go to "B"

A. 1.power off

2.T&B level

3.Altimeter stopped with pitch (If you are hanging in the straps you

are upside down but still alive)

B. 1.Max power

2.Altimeter stopped with pitch

3.T&B level

#2 Restore power and fly needle ball and airspeed.

1: The first Instrument to address is always the airspeed it is the most critical item and must be controlled first. The power response should become obvious and instinctive.

A:

Speeds hi, power off. With the T&B, level the wings next, because if you are in a bank and pull you will end up in a spiral. Therefore it is important to level the wings first. Then stop the altimeter. If you get in your airplane and pull the nose up 30 degrees and push it over you will observe that when the altimeter reverses direction the nose is on the horizon. Every time, regardless of bank. It is your best pitch back up.

B:

Speeds slow, max power. Stop the altimeter. We restore pitch next because

if you are in a 60 deg nose up and level the wings at low airspeed you will probably stall. Again we use the altimeter as a primary pitch instrument here. It is really the only one we can trust. Then level the wings with the T&B.

#2 Finally restore power and continue Needle ball and airspeed. Contrary to popular myth this is not difficult! It is actually easier because there are less gauges to look at. Yes shooting approaches is difficult, but maintaining upright flight within a couple hundred feet and heading with in 30 degrees is not. If you have a GPS the heading part is easy! If you are in real IFR declare an emergency and get no Gyro vectors to better weather or an ASR no gyro approach. This is not that hard either.

It is my hope that those who have downplayed the importance of the trusty turn and bank are those who aspire to be instrument pilots rather than those who are. It is further my hope that those who are instrument pilots and take the approach if I the vacuum pump quits I am dead anyway will go back and get some partial panel practice. It is not difficult and it is not taught nearly enough. I did not really do it until I got my ATP and then I was amazed at how simple it really was. Not to shoot precision approaches to minimums but all that is required is to keep the airplane right side up and find help.

Tailwinds,

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