Airplanes fly fast. That’s part of the allure of flying – going faster and faster as you work your way from light singles to twins, to turbo-props and jets. But, does the PILOT have to BE FAST to fly an airplane? Do we need to be methodical? Yes. Do we need to be deliberate? Yes. Do we need to be FAST? In most situations I say no. Don’t believe me? Take a look at OU’s Chief Flight Instructor. He has the lightning-quick reactions and speed of a Galapagos tortoise! And yet there he is, still dawdling along after forty years and thousands of hours of flying (and dealing with the occasional emergency along the way)! Let’s take a look at some specific examples – and how being FAST versus methodical and deliberate can get you in trouble.

Normal Landing. We briefed 70 knots as an approach speed (no gusts). But, at what speed do we want to touch down? Vso in the warrior is 44 knots. If we touch down at 65 – 70 knots what type of control do we have? For all intents and purposes the airplane is still flying – the wheels just happen to be touching the ground. Rudder inputs at high speed can easily lead to fish-tailing. How do you know if you’re too fast in the round out and flare? If you float more than 200 feet in the round out to bleed off airspeed, that’s an indication. If you balloon in the round out, that’s another indication. Finally, if you’re doing a three-point landing you’re definitely too FAST.

Flap Retraction. When to retract flaps after landing? Do we have to be FAST and get the flaps retracted right after touchdown? Seems to me this is a good way to get distracted and end up putting differential input on the rudders and start fish-tailing. For normal and soft-field landings, flap retraction is part of the after landing checklist. We do the after-landing checklist after taxing off the runway.

Braking. OMG! The runway is only 4000 feet long. I’d better be FAST on the brakes to make sure I get stopped after my 65 knot touch down! Applying brakes faster than 20-30 knots is a recipe for skidding and losing control. Let the airplane slow down before applying brakes!

What about short field landings? Don’t I have to be FAST on the flaps and brakes to properly execute this landing? NO! The emphasis on short field landings is a slightly steeper approach path and touching down on the designated spot (usually the numbers) just above stall speed. If you can do this there is no urgency whatsoever in flap retraction and braking. As I’ve said before: Touch-down – maintain control, take a deep breath – smoothly retract the flaps – take a deep breath – yoke smoothly full back – take a deep breath - apply some brakes. Let’s look at this from a different perspective. On a standard day, at max gross weight, the warrior max performance take-off ground roll is 1500 feet. The landing distance is only 700 feet. This is the case for most aircraft – takeoff roll is significantly greater than landing roll. Let’s assume that most sensible pilots won’t land at an airport from which they can’t take off. This means that in a warrior you won’t land at an airport with a runway shorter than 1500 feet. In reality the shortest runway we use is 17/35 at DJ Perry and that’s 1900 feet. So, in the worst case you’ve got 1500 feet of runway for a 700 foot landing. As long as you get the first part right - touch down on the numbers just above stall speed - you’ve got at least 800 feet of leeway to get the airplane stopped. There is no urgency to retract the flaps and jump on the brakes. You certainly don’t want to land with the brakes applied – something that we’ve seen on practical tests! Of course, if you don’t get the first part right, it’s time to GO AROUND and try again.

What about touch and go? Don’t I need to be FAST and get the flaps retracted right after taking off? Seems to me this is a good way to get distracted and end up in disaster more quickly. Read up on some infamous emergencies with favorable outcomes. In most, if not all cases, those crews professionally executed the appropriate procedures and had plenty of time to select the appropriate course of action.

Surely, there must be something that requires you to be FAST? OK, your Mach 2 fighter is out of control and rapidly approaching the envelope for the ejection seat. The difference between a successful versus unsuccessful ejection is often a matter of less than a second. So, when we get ejection seats in the aerobat I’ll start preaching FAST! Until then this tortoise’s song is “Slow down you damn bird, right? When receiving this instruction I’ve seen pilots ADD POWER to get to that taxiway and get off the runway as quickly as possible. This is a recipe for attempting a 90 degree turn at too great a speed and going off the runway. What to do? First, realize that ATC is not God. Even they will tell you that. So when that “EXPEDITE YOUR TAXI” instruction comes over the head set, acknowledge, and then keep that RPM down at 1000 and taxi down and off the runway at your normal speed. What’s the worst that will happen? The aircraft on short final gets to do a go around. If you go off the runway the aircraft behind you (and a few more after that) will be going around anyway!

EMERGENCIES. Engine failure, engine fire, electrical fire, door pops open on takeoff. This stuff is life and death. You’ve got to be FAST to survive an emergency. Not so. Why? Because we already know what we’re going to do for each of these situations, right? We brief engine out procedures (even to ourselves on solo flights) as part of the Before Take-Off checklist, right? We’ve committed the aircraft emergency procedures checklists to memory and chair-fly them routinely, right? If we have, we don’t need to be FAST, we just need to methodically and deliberately execute the memorized checklist(s). If you can do that you’ll find that even for the most dire emergency you’ve got a lot of time. Don’t have the emergency procedures checklists memorized? In that case the only thing being FAST will do for you is quickly doing the wrong thing which will cause your emergency to end up in disaster more quickly. Read up on some infamous emergencies with favorable outcomes. In most, if not all cases, those crews professionally executed the appropriate procedures and had plenty of time to select the appropriate course of action.

NOT SO FAST! By Dave McClurkin

DECEMBER 2010