



Upgrade 101

“By failing to prepare you are preparing to fail.”
-Benjamin Franklin

Why upgrade? Being a senior First Officer definitely has its perks. For many years, 1,000 PIC was the generally accepted minimum for a regional pilot to be considered by the majors. Today, for now, that has changed. However, airline flying has hiring peaks and valleys: that bright outlook today may be dreary tomorrow. Getting as much PIC time as you can will keep you competitive for all employers when times get hard again. Also, once you experience the freedom of being a Line Captain and get a year or so experience, you may find that you actually enjoy and look forward to your trips, becoming proactive in managing company resources, your aircraft and crew to where you consider work as FUN!

Becoming a Captain is not hard. You already have the flying skills that we will “brush up” for your checking event. Making the switch from follower to leader is a little tougher, but remember, every senior “legendary” pilot at every carrier had a first day where they knew essentially nothing. Each of them had a first upgrade where they sweated the oral and practical exams, the humiliation of “oops” during operational experience, etc. They made it – you will too!

“If you take care of your crew first, the aircraft second, and the company third, you will never ever have to take care of yourself”

Success: Your instructor will be focused on and dedicated to your success and will give 100% while you are in training. All that **SUCCESS** asks is that you give 100% as well. If you have any problems that may compete for your attention, get them sorted now. That said, if you must “press on”, we’ve all been there and understand. External stressors and distractions make training much harder than it has to be. Ensure you get sufficient sleep, exercise, and decent food – showing up at simulator training munching the donuts and/or pastries is not a good start to the training period – your sugar rush is liable to be when you are in the right seat and sugar crash when you are in the left seat. Either way you are hurting yourself, your training partner and your instructor. Plan ahead, be proactive and on time.

Passion: We all reach the point where we will no longer wash, wax, fuel airplanes, etc. for a few minutes in the air. Consider upgrade as a challenge, a new adventure! Rekindle your passion for aviation! If you have time before training, consider reading “Fate is the Hunter” by Ernest Gann, “Wind, Sand And Stars” by Antoine de Saint-Exupéry, “Fly the Wing” by Jim Webb, and if you will indulge this writer, please consider reading the short two page fictional essay from Flying Magazine at the end of this memorandum. This writer will never be a “Captain Dubois” from that story, but you may have to be at various points in your aviation career.

Who must do the hard things? Those who can. –> YOU!

Listen: Your instructors are not talking to hear themselves talk, they are trying to communicate with you the best they can. If you don't understand something, please speak up! That said, there are often many ways (personal techniques) to accomplish a task within standards. Best advice is **don't get creative** during training. Better is the enemy of good enough when it comes to checking events. Bottom line is you must **pass all the tasks**. There are "magic numbers", "seat position", "use of arm rests", "ball or brick scanning", etc. that will make many maneuvers much easier to perform. However, if you don't listen and want to do things "your way", then you may be re-inventing the wheel. Stay open to new ideas and techniques.

Professionalism: What's the difference between a **professional** and a technician? The technician is trained to operate, observe, measure and when something goes wrong – open a book and follow instructions. A professional must do the same thing but also know when to leave the book and **save lives**. An old saying is "**live by the book, die by the book**" and there are many accidents that may have been prevented by diverting to the nearest suitable airport and landing while running appropriate procedures on the way to a safe landing ([Swissair 111 in 1998](#) is one example). That said, read your manufacturer notes in the prefaces and the introductory chapters of your FCOM and/or QRH. They may have a few paragraphs of general expectations that you really should read before time becomes critical. Read them before fate tests your leadership, competence, knowledge and skills some day in the future.

Personality: A pleasing personality is very important during events. However, remember that your ~20+ million dollar career is on the line. 10% anger (how dare we question your flying ability) combined with 90% focus and dedication will help you **maintain "the edge"**. Avoid engaging in off-topic conversations as best you can. During your checking event, you must be the dominant personality in the simulator (stay polite at all times) and maintain a sterile flight deck unless the examiner expressly instructs you to perform otherwise.

"It is possible to fly without motors, but not without knowledge and skill."
– Wilbur Wright

Preparedness: Life is sometimes hard, but is much harder if you are not prepared. Self discipline is the key. Every airline publishes a “current manuals” list, make sure you get the current one and check your operating system, application software, manuals, charts, etc. when starting training and confirm you are still up to date before events. In addition, visually check the location of your pilot certificates, medical, passport, headset, flashlight, spare battery, etc. the night before checking events. It sucks to be you if you are stressing out because you discover your battery or batteries are dead or you don’t have something and/or the current version of something and hoping that the examiner doesn’t ask you for it. You must ensure that you always update your EFB a few hours prior to an event and charge it while you are sleeping. Study and practice as a team. Comply with your company dress code. Don’t put your instructor in the position of having to protect and cover for you.

Event Checklist:

- EFB charged
- EFB updated (Operating System, Application Software, Manuals and Charts)
- EFB spare battery charged
- Headset (Batteries charged? Spare Batteries?)
- Flashlight (Spare batteries?)
- Two pens
- Writing paper and a clip to hold the paper securely
- Company ID
- Passport (and TSA authorization if not US Citizen)
- FCC Radio Telephone Permit
- FAA First Class Medical Certificate
- FAA Pilot Certificate
- Confirm Transportation Time
- Good Attitude!

Never lie, but you can certainly present the truth to your best advantage.

This Did Not Happen from Flying Magazine, 2/13/2019

The saving of Air France 447, as told by Saint-Exupéry.

Captain Dubois had gone to his bunk a little while earlier. Dubois was one of the vieux tiges, the rootstock onto which all us young vines were grafted. Behind his back, everyone called him le père Dubois — Old Dubois. I think he was kind, but it was hard to tell; he didn't have much to say. He'd been flying since the beginning of time, had flown everything. His red cells were in the shape of airplanes. They said he could fly an airplane into an underground garage and land it in a parking space.

We were trying to contact Dakar for higher when there was a kind of harsh rattling sound like hail, and then hell broke loose. The annunciator panel lit up and the auto pilot disconnected. We had no airspeed indication. I thought we had an overspeed, and I pitched up. The plane shot up to FL 380, and we got a series of stall warnings, and then things seemed to settle down a little except for one thing — the altimeter was scrolling down like mad and the VSI said we were dropping at 10,000 feet a minute. Our pitch attitude was almost level; the wings were rocking from side to side. This seemed to go on forever, but it was probably only a minute. We couldn't understand what was happening, and we had no idea what to do.

I didn't hear the cockpit door open. There was only a voice, sudden, harsh and profound: "What are you doing?"

I twisted around to see him. Rumpled and shaggy amid the tatters of his interrupted sleep, his tie loose, his grizzled hair falling across his forehead and his wrinkled eyes squinting as though the darkened cockpit were uncomfortably bright, Old Dubois loomed in the door like a prophet of the Bible. I felt a surge of shame, as Adam must have when God demanded his accounting. What were we doing? What had we done?

"Stall! Stall! Stall!" an urgent, toneless voice was crying out.

"What's happening? I don't know, I don't know what's happening." Jean-Claude spoke rapidly, his voice tense in his throat. "We lost all control of the airplane, we don't understand anything, we've tried everything. We have no valid displays."

"I don't have vertical speed," I said. "I have no more displays. I think we're at some crazy speed."

"No," Jean-Claude said. "No! Above all don't extend ..."

"Get the wings level," Old Dubois said.

"We're still going down," I exclaimed. The altimeter tape unreeled steadily. All the while, over and over, the tireless and insistent voice intoned, "Stall! Stall!" We had lost 15,000 feet now, and nothing had changed. We could hear the engines at takeoff thrust over the strangely quiet wind and the cacophony of warnings. Our voices, like the disembodied chatter of ghosts, fluttered through the cockpit.

How could this be? We were level, at takeoff power, with the stall warning blaring, and yet falling, falling! How had we sinned, to be wrenching this way from all comprehensible reality and thrust into an impossible nightmare? Why had this airplane, our friend, our partner, our confidant, betrayed us?

Old Dubois stood in the door, one arm bracing himself against the rocking of the airplane. He stared fixedly at the panel, as though he were staring at the very face of Death himself. Twenty seconds

passed. Jean-Claude and I floundered in impotent bafflement, but Old Dubois, silent as a tree, appeared grave and lost in thought. Then suddenly he stepped forward and put his gnarled hand on Jean-Claude's shoulder.

"Let me have it!"

Jean-Claude's trembling hands fumbled at his harness. He rolled out of the seat and half fell toward the aft bulkhead as Old Dubois pushed by him.

"My airplane," he said.

His left hand closed on the sidestick as if he intended to squeeze the life out of it. I could hardly believe what I saw then: He pushed the stick fully forward. I felt the airplane heave, as though awakening from a restless and tossing sleep.

But we were already going downward! "Trim!" said Old Dubois, half to himself, half to the airplane.

We seemed to rise out of our seats. The airplane yawned and rocked with increasing violence, then shuddered like a wounded animal expelling its last breath. I felt a sensation of rolling, and my eyes went instinctively to the standby horizon. The miniature airplane — the airplane that was our airplane, that carried in its tiny white outline our lives, our loves, our hopes, all that it meant to be alive — stood in knife edge, the horizon far above it. I became aware of the noise of air, a gathering roar that we had forgotten.

The white cutout rolled slowly back to level. Old Dubois' hand now flexed backward. I felt myself pulled down into my seat as though by the gravity of some immense planet. What was happening? The stall warning had ceased its litany, but now for what felt an eternity that massive gravity dragged us down. I stared at the instrument, fascinated. Our little icon had righted itself, its wings were level and now the horizon was coming down to meet it.

I scanned the panel. It was still a carnival of warnings, but now the sounds and sensations of the cockpit had become familiar again. I looked at the captain. He sighed, and then with swift fingers reset the autopilot. We were in normal law again. All was well; we were climbing through 7,000 feet. We had emerged from the storms. I could see the stars, the sweet, welcoming stars!

Old Dubois sat quietly a moment, then took a deep breath and rose from the seat. "À vous," he said. "Yours." And he returned to his bunk.

Only later, when the big brains of Toulouse had pondered the data-recorder files, did I learn what had happened. We had flown into a field of supercooled water droplets that overwhelmed the ice protection on all three pitots. That was supposed to be impossible. So, the autopilot had disconnected. And then I had done what no pilot is supposed to do. I pulled up, and we zoomed to 380 and stalled. We started to settle at 10,000 feet a minute, but the airplane was level or a little nose-high actually, with just 100 knots of forward speed, so we had an angle of attack of 40 degrees or so. The wings rocked but didn't roll off. It seems swept-wing planes can do that.

And all the time I kept holding the stick back because we were descending, and I had no idea what instruments to believe and what was just electronic folly, because I thought the whole system had become rotten and corrupted. But it turns out the electronic displays were right all along. And Old Dubois figured it out. He had it in his blood, like a cat that knows to spin around feet-down no matter which way you drop him. Nobody at Airbus had tested this. They didn't think it could happen, it never had happened, and yet Dubois saw it. He put the nose down 40 degrees, so we were pointed the way

we were going, like a dive bomber, like no Airbus before or since, and he flew out of it. It was basic, really.

They ferried the plane to Toulouse, and after that, it never flew. Its wings had a permanent set — more dihedral than before. I never crewed with Old Dubois again; he took retirement a year later. There was a big ceremony, but I was in Kuala Lumpur and missed it.

Funny, though — I suppose funny is the wrong word — a few years later, exactly the same thing happened to an AirAsia A320. The pilot, poor devil, did the same thing I did, like me probably without realizing what he was doing. And the plane went down to the bottom of the ocean. Because they didn't have the likes of Dubois with them. No one does, these days... no one does.

Memory Items, Limitations, Systems, Emergency Equipment, Company Procedures, Country Regulations, Weather, Aerodynamics, etc... is a lot to cram into the night or week before a checking event! Now is the best time to crack the books and become the Captain you want to be!

WE WISH YOU ALL THE BEST!

