

# Being A Better Student, Part 1

**James Albright** June 28, 2021



As with other professions, the normal progression for a pilot on the way to becoming a professional aviator means earning progressively higher and higher levels of certificates and ratings. The start of this long journey begins with your first medical certificate. On it, it says clearly, “Student Pilot.” You definitely know where you stand with this one in your pocket. Once you earn your private, you start on your instrument rating or commercial. Once you earn your commercial, you earn a multiengine rating. Then you build hours for your airline transport pilot (ATP) license. Then, once you earn your ATP, you think you’ve arrived.

But even with that achievement, no one (no insurance company that is) will let you sit left seat in a heavy jet just yet. Why? Because for all intents and purposes, you are still a student pilot! Ironically, we all began as students hoping to graduate to our professional lives. But lost on many of us is the fact that our apprenticeship never ended. We will always be students, so we might as well learn to be better students.

## **Step One: Be a Better “Forever Student”**

In my 20-year [U.S. Air Force](#) career, I spent 15 years as a pilot and five years flying a desk. While on the Air Staff at the Pentagon I was cautioned to never take work home with me. “It will destroy your marriage and it will destroy your passion for your profession.” We never had such a warning while out in the field, flying airplanes. At the squadron level, it was a badge of honor to live, think and breathe aviation. With that background, it continues to amaze me to hear my fellow civilian pilots talk about having a distinct line between work and home. I

might be wrong here, but in my view, your aviator mind should never switch off. Flying airplanes has become safer over the years, but it is still not risk free. There comes a time where you have studied enough and any more becomes counterproductive. But until that point, getting better at what you do makes you a safer pilot. It has become easier to immerse yourself in all things aviation. I usually start each day with a series of emails from various aviation websites and magazines and filter through to read those that apply to my aircraft type (Gulfstreams) and my operation (international business aviation), and then I include any others that are just interesting on their own. A few of my favorites:

- BCA magazine
- Ops Group
- Curt Lewis and Associates Flight Safety Information



A small part of the author's library. Image credit: James Albright

Being a forever student aviator does tend to monopolize your attention and you do have other things to worry about. But that is part of the challenge: striking the right balance. Just because you are a forever student, however, doesn't mean it can't be entertaining. I trade book recommendations among friends and keep a list of my most recent top-10 titles:

- (1) Gandt, Robert, *Skygods: The Fall of Pan Am*.
- (2) Goldstone, Lawrence, *Birdmen: The Wright Brothers, Glenn Curtiss and the Battle to Control the Skies*.
- (3) Copp, DeWitt S., *Forged in Fire*.
- (4) Gann, Ernest K., *Fate is the [Hunter](#)*.
- (5) Coram, Robert, *Boyd: The Fighter Pilot Who Changed the Art of War*.
- (6) Wolfe, Tom, *The Right Stuff*.
- (7) Gawande, Atul, *The Checklist Manifesto: How to Get Things Right*.
- (8) Hansen, James R., *First Man: The Life of Neil A. Armstrong*.
- (9) Weatherbee, Capt. Jim, USN Retired, *Controlling Risk in a Dangerous World*.

(10) Marquet, L. David, *Turn the Ship Around!*

Each book will make you a better aviator. The list is forever changing and can spark intense debate. But that is part of the fun of being a forever student aviator. I still cling to hardcover copies of each book, just as I continue to cling to DVDs of my top-10 movies:

- (1) “Twelve O’Clock High” (1949)
- (2) “Catch-22” (1970).
- (3) “The Right Stuff” (1983).
- (4) “Dr. Strangelove” (1964).
- (5) “The Red Baron” (2008).
- (6) “The Great Waldo Pepper” (1975).
- (7) “Airport” (1970).
- (8) “Memphis Belle” (1990).
- (9) “Flying the Feathered Edge” (2014).
- (10) “Airplane!” (1980). [“Surely you can’t be serious!” “I am serious, and don’t call me Shirley.”]

### **Step Two: Do a Better Job Preparing for Class**

If you are like me, you invest a lot of effort into your recurrent training every six months, and once you are done, you want to give yourself a break from regular study. You promise to get back into it after a month, but before long it is six months later, and you show up for another recurrent ill-prepared. I say, “like me,” meaning “like the used-to-be me.” I now have a 30-day preparation routine. The core of the idea is to devote an hour each day to a well-thought-out study plan, starting 30 days before class. Limiting yourself to an hour will encourage you to keep at it until you are complete. Here is my current plan when preparing for Gulfstream GVII recurrent:

- (1) Class Day Minus 30: Review memory items daily with audio and iPhone flash cards.
- (2) Class Day Minus 29 through Minus 19: Devote remainder of hour studying a different major aircraft system each day.
- (3) Class Day Minus 18 through Minus 13: Devote remainder of hour studying a different normal procedure.
- (4) Class Day Minus 12 through Minus 4: Devote remainder of hour studying a different abnormal or emergency procedure.
- (5) Class Day Minus 3 through Minus 1: Devote remainder of hour studying the theme you expect to see for each of three simulator sessions.

I say this is my “current plan” because it evolves after each recurrent training class.

### **Step Three: Take Better Notes**

I spent my first 10 years of attending regular recurrent training taking notes the same way I did in college. I listened and jotted as quickly as I could, sometimes to the point where the result was indecipherable as soon as I put my pen down. The notes proved useful in college, as there was a project or paper coming due and I was forced to look at them the next day, if not sooner. There was no debate on the content because the person doing the talking was usually the person doing the grading. Besides, we were not talking about life and death, just an end of semester grade. This method has failed me as a pilot at initial, recurrent or any other aviation-related training. The person doing the

instructing is delivering information-dense material and normally using information-dense slides that whip by faster than I can write. I once resorted to using an audio recorder until I was reminded that was verboten in the training contract. I even took iPhone photos of some of the slides--until once again reminded it was proprietary information. Looking at our latest training bill, I think spending more than \$100,000 for a single pilot's recurrent ought to entitle us to a camera and audio recorder in class, but those are the rules.

The solution came to me about 10 years ago. It is a note-taking method developed in 1962 by Walter Pauk, director of [Cornell University's](#) Reading and Study Skills Center. His book, *How to Study in College*, is in its 11th edition and worth the investment. The crux of the method is to draw a vertical line on the left side of your notepaper that extends from the top to about an inch or two short of the bottom. Then line off the bottom with a horizontal line. The left column is for your cues, the right column is where your notes go, and on the bottom is a summary.

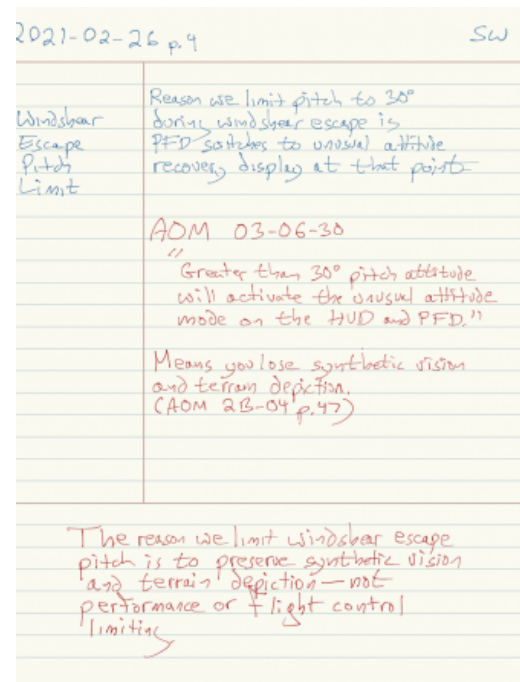
As you sit in class, you listen first, take notes second. The notes go into the right column using short sentences and the only thing you need to record verbatim are exact numbers or items required to be exact. You then write cues in the left column that further summarize the notes or remind you of questions that need answers. You can do this during class, break or after class. But the sooner the better. Finally, after class, you summarize it all. That is the method in a nutshell. I add to the method by further research, usually added in a different color.

You can buy "Cornell notes" paper pads on many campuses and even online in colorfully bound books. My method of choice is on an iPad using the "Noteshelf" application, available for \$9.99. The app includes a Cornell notes template.

One of the advantages of using an iPad notetaking application is there is no cost for wasting "paper" and I can devote a page to each thought, which improves the future use of the notes. I have my own customized style with each note. On the example page, I note the date and page number of the note on top, to the left. I write the instructor's initials on the right. The note and the cue are written during class in blue.

During a recurrent training class, the instructor said the reason why we GVII pilots are supposed to limit our pitch during a windshear escape maneuver is to prevent the primary flight display (PFD) from going into an unusual attitude display. I thought it had to do with a performance limitation or perhaps to prevent the flight control computer from taking over in one of its protective modes. That night I researched this further and entered my findings in red.

I can now easily find the answer to this question, know where I first heard it, know the source material, and know who gave me the information in the first place. Over the years I've found some instructors are simply repeating things they've heard without any further foundation. After some research I was able to refute the knowledge and let the instructor know. You may have a better method or this might be just what you've always needed. But if your notes end up at the bottom of a shelf never to be seen again, I encourage you to give the Cornell notes method a try.



Sample Cornell notes from the author's most-recent GVII recurrent.

Image credit: James Albright

# Being A Better Student, Part 2

James Albright June 29, 2021



A Gulfstream G500 cockpit. Photo credit: James Albright

*Editor's note: The first three steps of being a better student are found in [Part 1 of this article](#).*

## **Step Four: Have a better open mind while being a better skeptic**

The often thought but rarely spoken paradox about how most flight training is done at the professional level is that sometimes, but not always, the better qualified pilot is standing on the wrong side of the podium. While the pilot with the floor is better trained at delivering the lesson, he or she sometimes lacks the necessary relevant and recent experience needed to effectively teach. Note that I say sometimes and not always. As a student, I need to be prepared to learn.

In the previous example dealing with windshear escape maneuvers, I wrongly assumed our pitch limit was set at 30 deg. because sooner or later we would run out of aerodynamic performance and the fly-by-wire system would override my inputs. The answer was in an obscure part of the manuals that I may have read but obviously forgot. I am not alone in this, because the simulator instructors may have noted a trend in student actions in the simulator and thought that worthy of bringing up. I wrote the instructor's statement, somewhat skeptically I must admit, and found out through later research that he was right and I was wrong.

But it sometimes happens the other way around. Years ago, while flying a [Bombardier](#) Challenger 604 with our company's chief pilot in the right seat, we lost a hydraulic system while at cruise altitude. I directed the copilot, my boss, to declare an emergency and request an emergency landing at a nearby airport with a long final to give us time to use the alternate gear extension system. It all worked as it should have, but I noticed my boss was uncharacteristically nervous to the point of skipping steps in the checklist and being visibly relieved once we were on the ground. That night at the bar I asked why. He seemed surprised. "Don't you know?" I said I didn't. He said, "No Challenger crew has ever before successfully extended the landing gear using the alternate system outside of the simulator." Of course, this is nonsense and I chalked it up to his nervousness. But at my next recurrent I found the source of his angst. Our ground school instructor said the same thing. Just because the instructor says something, doesn't make it true. In the words of a former U.S. president: "Trust but verify."

### Step Five: Do a Better Job Teaching as Well as Learning

I found early on that the best way to learn something is to teach it, and that process follows attending recurrent training too. As tightly scripted as some recurrent training can be, the dynamics of having two pilots from different flight departments and a random instructor means each experience will be unique. I can think I have a maneuver mastered for years and then find that I am more of a novice and need to relearn old lessons. I think the best way to cement these lessons is to relive them with "war stories" to peers, and to include the lows as well as the highs. Rather embarrassingly, my latest learned and relearned lesson spans over 40 years.



The cockpit of a [Cessna T-37](#). Photo credit: J. Brew)

My introduction to having to circle from an instrument approach to a different runway under a solid ceiling came as an Air Force student pilot in the [Cessna T-37](#), which was about as stable an instrument panel that has ever been designed. It didn't have an autopilot or a flight director, so the success of the maneuver rested solely on the pilot holding the stick. A common rookie mistake is to be turning and descending from a base to final, pull back on the stick, and pop up back into the weather. "Just practicing my missed approach, sir!"

From there it was on to the Northrop T-38 for me, where the circling was done at a much higher speed (150 versus 100 kt.) and the stick was certainly more sensitive. But, fortunately, I had the blown circling maneuver out of my system by then.

Over the years, flying airplanes with conventional yokes, the danger of pulling up into the weather had decreased but not disappeared entirely. I've witnessed a good number of pilots roll toward the runway, disengage the autopilot, and climb. "Hey, where did the runway go?" But not me, I was above all that--until about a year ago. I was flying the number one choice for this maneuver in a simulator, the RNAV(GPS) Runway 27 circle to Runway 18R at [Memphis International Airport](#) (KMEM), in a Gulfstream GVII-G500, which has a sidestick and not a yoke or center-mounted stick. Pulling back on a stick mounted on your left with your left hand makes it easy to pull in pitch as well as roll, but I managed to avoid that during my initial type rating and first three recurrences. But that streak has now ended. "Hey, where did the runway go?"

I came home and told everyone I knew about it. (And now I am telling thousands more.) I think most pilots would prefer to leave these lessons behind them and I think that is a mistake. My "pop up" incident was a few months ago and I still think about it. The lesson is firmly planted in my mind and in my left hand, for that matter. But it does one more thing. It allows other GVII pilots with sidesticks to learn from my mistake. That is one of two primary reasons for telling a good war story, after all. (The other primary reason is to entertain your buddies at the bar.)

Having analyzed the mechanics of my left forearm sitting on a sidestick rest and my left hand gently cradling a stick, I see how easy such a mistake is to make. Now I know. And so do you.

### **Better**

You cannot think of your apprenticeship in aviation as one of being a student and then becoming a graduate. It is the nature of aviation that we aviators are students for life. As you add more ratings and qualifications to your resume, the opportunities to learn and become better students adds as well. In this series of being better, we will follow this article with "Being a Better Pilot," "Being a Better Crewmember," "Being a Better Captain" and, finally, "Being Better."

You might wonder what qualifies me to write such a series. When I was a brand-new KC-135A tanker copilot, I made the mistake of admitting to my aircraft commander that I made a mistake.

Captain: "Why did you leave out the winds in that last HF position report?"

Lieutenant: "I made a mistake. I make mistakes."

Captain: "Well I think you should be pretty good at that."

Lieutenant: "Everyone has a skill."

I've admitted a lot of mistakes from my many decades flying airplanes, and I suspect that trend will continue. Thankfully I now end up having to retell old stories because there are fewer and fewer new mistakes to admit to. I guess that is progress of a sort.

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