



— LATEST BRIEFING —

## Expanding CJP's Safety Commitment

*From Kirk Samuelson, CJP President*

I believe it's fair to say that few experiences in life compare with the sense of pride we all feel through earning the privilege to operate our Citation aircraft. I'm sure I also speak for all CJP Members in stating we strive to perform and complete each flight in the safest manner possible.

Citation jets are among the safest owner-flown aircraft ever built, and our large and diverse community benefits from the high levels of support from the CJP Platinum Plus partner Textron Aviation, and the expert guidance from industry-leading training providers (and CJP Platinum partners) TRU Simulation + Training and FlightSafety International.



The CJP community also benefits from dozens of respected aviation professionals, willing to impart their wisdom and expertise to each of us during recurrent training opportunities, as well as at events such as our regional forums and our annual convention.

As Citation pilots, we enjoy the benefits of a well-designed aircraft, modern equipment and avionics, training and procedures all of which are intended to ensure that every flight is completed successfully. Too often, though, we've seen the consequences of failing to adhere to our own high standards.

Recent events throughout the entire General Aviation (GA) industry, including within the Citation operator community, have highlighted the need to examine new perspectives on the matter of safety, particularly for single-pilot operators.

CJP has formed a dedicated Safety Committee and has appointed Charlie Precourt as the Chairman. As you will note in Charlie's biography ([link](#)), he is well qualified to Chair this committee. Charlie is an Air Force Academy graduate, Retired Air Force Colonel and fighter pilot, four-time NASA space shuttle astronaut and was inducted into the NASA Astronaut Hall of Fame in 2012. He holds a commercial pilot certificate with instrument and certified flight instructor (CFI) ratings, and has accumulated over 11,000 hours of flight experience in 90 different aircraft types, including several versions of the Cessna Citation.

I want to personally thank Charlie for taking on the task of sharing information that will help everyone operate their Citations in the safest possible manner, and to distribute safety-related resources for use by CJP Members. This will be accomplished through this new quarterly publication, "CJP Right Seat", and a new, dedicated Safety tab ([link](#)) on the CJP website.

By forming this committee, CJP wants to lead the discussion on further improving our industry's safety record. Even more importantly, we want to encourage honest safety related discussions and feedback throughout the Citation community. This includes reexamining our individual operating practices, acknowledging where we've strayed from our training, and what we should know to use proper and correct "by-the-book" procedures.

With the formation of this new Safety Committee, CJP is taking a highly proactive approach to elevate the overall safety record for Citation pilots. I encourage all of our members to engage in fostering and promoting a culture of safety throughout our community.



## Joining the CJP Safety Committee

*I'm a proud new 525S certificate holder...and there's plenty I won't go do with it!*

*From Charlie Precourt, CJP Safety Committee Chairman*

Let me explain what I mean.

I'm delighted to be joining CJP's new Safety Committee and look forward to sharing thoughts on safety philosophies and best practices in future columns of our committee newsletter. As part of this initiative I recently completed my 525S type rating at FlightSafety in Wichita in their Cessna Citation CJ3 simulator. It was a very valuable experience and stimulated lots of thoughts about the future direction of our Safety Committee activities. I'd like to open this first newsletter column by sharing my takeaways from the experience.

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I had some previous exposure to the CJ series aircraft with Stuart Fred, Mike Herman, Tracy Forrest, Juan Rodriguez and a few other folks adding up to 30 or so hours over the years, but never made any real effort to learn the systems or pursue a type rating until now. The folks at FlightSafety got local FAA approval for a shortened initial course that was built more like a recurrent, based on my prior experience in many other turbine aircraft. I appreciated their confidence, but recognized all those other turbines were not Citations, and asked for no heroics to trim away too much of the initial course. So the syllabus I had included 3 days of ground school, self-study coursework, simulator, a half-day focused on the check ride and an additional day to take the upset training program FlightSafety has created. Right up front I will point out this was a very challenging profile for me, given I'd not had any prior academic or simulator training in any CJ series aircraft. But doing it this way really reinforced some lessons about operating single pilot that made it very worthwhile. Perhaps the most obvious lesson, and one repeated many times in my career, was how valuable the simulator is over the aircraft for performing both initial checkouts and follow-on training. I would not have been able to achieve anywhere near the same result had I spent 4 days with an instructor in an

airplane! You just can't develop the skills as fast for various maneuvers and tasks, nor can you dive into the failure scenarios as thoroughly in the aircraft alone.

In spite of the value of the simulator, in my tag line for this article I note there's plenty I won't go do with my new 525S type rating. I now have a grand total of 12 hours in the simulator, including the check ride and the upset training, 16 hours of classroom time, and another 20 hours or so of self-study. I can say that any of you with a 525S type obtained from a 142 school like FlightSafety ought to be very proud of the accomplishment. For me, despite more than 11,000 hours in over 90 types, I still have quite a way to go before I fully develop the "muscle memory" for many of the tasks required to fully master the CJ series aircraft. When I say there's plenty I won't go do with the rating yet, I'm speaking of piling a bunch of passengers in the back and heading off single pilot on trips to challenging destinations or at night or in bad weather. As my check pilot said in the debrief... "you met all the standards!" What that means is I have a way to go to achieve the professional levels of performance standards that I am accustomed to in the many other aircraft I've flown. I went back and counted the number of check rides I've had in my career... it's kind of staggering. Between my military, NASA and FAA flight experiences, I came up with 112 check rides, about 30 of them in simulators, and the CJ3 ranks among the most challenging. Part of that is because the course to prepare was short, but also there are many things that must be learned well to fully master the aircraft. "Give it time young Jedi!"



Regardless of the self-critique, my proficiency coming out of the four days was actually pretty good. So, another obvious lesson from this "short course" was how important proficiency is to flying a CJ well. Without regular flying in a variety of operational scenarios, my needed progression could be a challenge. I imagine I will find myself relearning things for some time to come whenever I do fly. For anyone who doesn't fly regularly or is rarely challenged with demanding flight profiles, bad weather or

unique destinations, maintaining a high level of performance standards in flying the CJ is bound to be difficult. So, whenever I'm on autopilot at altitude in a quiet phase of flight, I intend to repeatedly explore all the pages of the Proline 21 FMS, the PFD / MFD display options and configurations of the keypad on the CDU as to entry methods to keep building muscle memory for the automation. I'll also be flipping through every emergency and abnormal procedure page "chair flying" my way through the steps to recognize and respond to any systems problem. And I'll also make it a priority to go back to the simulator to keep building on these skills.

Several other lessons came out of this experience worth mentioning. One is remembering to define "what good looks like." I mentioned that I "met the standards." Isn't that good? Well actually it's only OK. In the course of flying the profiles for the check ride, I was always way too busy. I was never "lost," but I also never got far enough ahead that all my moves were smooth, well-timed, and leaving me bandwidth for thinking even further ahead. When we flew the Space Shuttle, we used to joke that as soon as we strapped into the front seats and started throwing switches our IQ would drop 20 points... just a funny way of recognizing the reality of task saturation. Only training, proficiency and muscle memory can tame that challenge. You could picture what good really looks like if you watched from the instructor's console as I flew my check ride and then compared me to a very proficient CJ pilot. You might describe the proficient "pro" as completely calm, even in the most hectic of scenarios in the simulator, almost working in slow motion, making it look effortless. Whereas, watching me, you'd see my hands were constantly moving, I was always doing something to "correct back" to where I wanted to be, and you'd not describe me as making it look effortless... at least not yet! But that's the standard to strive for. In the military, we used to call it the "triple nickel." Get through an entire flight never being more than 5 knots off your intended airspeed, 5 degrees off intended heading, or 50 feet off intended altitude. And do it while making it look effortless! So the challenges of a check ride can indeed be humbling, but after number 113 and counting I've become accustomed to humility being the price of entry to achieving "good!"

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Another lesson is managing the automation. The CJ3 with the Proline 21 avionics suite can be heads down intensive, and require lots of keystrokes. For that matter, other CJs with Garmin, King or Universal FMSs and radios can also drive a lot of heads down time. To manage single pilot at night or in real IFR scenarios to minimums, efficient use of the autopilot is paramount. Anticipating what the aircraft is going to do next when you set up and engage the various modes of the autopilot, having both the lateral and vertical mode verified on the “scoreboard,” gets to be simple with practice. But making an error in the setup and having the autopilot mode-select set to something you didn’t expect can drop your situational awareness in a hurry. Not that this happened to me on my check ride or anything! (Yes it did)... If you have the impression that the clover leaf of crazy patterns in the weather to multiple instrument approaches using different runways, single engine, no flaps and circling to land is just a harassment exercise by the instructors in the simulator, I’m here to tell you that managing those scenarios effortlessly is achievable, and getting to that standard can save your bacon one day. I’m not there yet in the CJ but I intend to be.



Negative transfer of training also became a big lesson of this experience. Depending on what aircraft and avionics you transition from prior to beginning in the CJ series, this transfer of training may impact you differently. For me, I frequently fly a Piper PA-46 JetProp, which has a yoke with a completely inverse arrangement for autopilot disconnect and push-to-talk. In the PA-46, the push-to-talk is on the top of the yoke and the AP disconnect is on the forward edge. I can’t tell you how many times I disconnected the autopilot in the CJ3 simulator when I was trying to just talk on the radio! That’s muscle memory working against you for sure. This may seem like a trivial example, and one that is easily overcome, but it is an example of a larger overall issue... and that is recognizing our ability to advance in training based on the progression pathway we had leading up to flying a CJ series aircraft. Some of us moved through several aircraft that progressed gradually to the higher performance levels of a jet. Others jumped larger intervals, from say a Cessna 172 to a Cirrus to a CJ and had to make larger adjustments. The need to account for these differences in our training is something worthy of future discussion.



Finally, my training raised a few thoughts on what we can do as a community to make our safety initiative truly effective. As we move forward, putting some thought into defining the culture we seek at CJP would be valuable. There are probably many value statements we could create, but just for the purpose of brainstorming and thinking out loud, here are a few to consider.

At CJP, given the capabilities of the Citation line and the training system available to us, we have the platform to demonstrate the ideal in safety for all of General Aviation. We also recognize the potential to contribute greatly to reducing accidents in the CJ single pilot fleet.

We should seek mentoring from recognized experts within our community. Where appropriate we should consider including a second pilot in our operations to advance aeronautical decision making skills.

We should be able to “just say no” when the conditions confronting us for an upcoming flight are questionable. A go-to mentor for times like this can be invaluable. We should be willing to pursue the best training programs available, making best use of the simulator - in particular, for its ability to train skills we can’t readily practice in the airplane. Our CJP community should consider training in the aircraft alone as not up to our acceptable standard.

We should commit to the pursuit of continuous improvement of our skills, and operate our aircraft using the best standards and practices established by our community. It’s a privilege to be joining you as a member of the CJP Safety Committee... there’s lots to do and share. Very much looking forward to the opportunity!

- Fly Safe  
Charlie

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