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— LATEST BRIEFING —

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## CJP Safety Record and Initiatives Gaining Momentum

First Quarter of 2022 Continues a Great Trend for CJP Members

*by Charlie Precourt, CJP Safety Committee Chairman*



In this edition of *Right Seat*, we have some timely updates on our safety committee's top initiatives. We're making great progress developing a curriculum for our new Safe to Land initiative, including a new page on our website full of relevant information - and, perhaps most significantly, CJP members are now 18 months and counting without an accident or incident in our Citation fleet! Keep up the great work, all.

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As you'll read in this newsletter, our two newest CJP Safety Subcommittees are already hard at work identifying focus areas to further understanding of Safe to Land and to address safety concerns for owners of legacy Citation models.

Speaking of Safe to Land, we've received tremendous feedback about the program from across the aviation industry. CJP has also continued our outreach to underwriters to raise awareness of all our CJP safety programs, as David Miller briefed them recently at the Southern Methodist University (SMU) Air Law Symposium in Dallas, TX.

Thanks to David for making the effort to speak at the symposium. Insurance premiums remain a huge issue for us, but the 18-month run we've had without an accident or incident among our members is getting notice in the underwriter world.

David's also put together a useful guide on how you can help yourself at your next insurance renewal. And as he points out, the CJP Gold Standard Award is a big help when renewal time comes around.

This issue of *Right Seat* closes with an article from NBAA's *Business Aviation Insider* that further reinforces how flight operations of all sizes, including single pilot, can adapt proactive safety policies from across the industry.

### **Safe to Land Initiative**

If you were at our convention in Indian Wells, you were able to get the background and introductory "academic material" associated with this initiative. It has garnered a tremendous amount of attention from around the aviation community and shows great promise in eliminating runway excursions on landing.

## **CJP SAFETY EFFORTS LAUDED AT SMU LAW SYMPOSIUM**

*by David Miller, Director, CJP  
Programs and Safety Education*

At the invitation of CJP member and Mustang owner Ladd Sanger, I spoke to several hundred attendees in Dallas, TX on March 30th at the 56th annual SMU Air Law Symposium. I reviewed the efforts of our safety foundation including the most recent [Safe to Land \(sm\) initiative](#). The one-hour presentation featured a panel including Ladd, myself and Greg Sterling, president of the Aviation Insurance Association (AIA). The audience included aviation underwriters and attorneys from across the country.

I sense an increasing awareness and appreciation for the work of our safety foundation which could translate into insurance products tailored to those who achieve the CJP Gold Standard Safety award. Don't forget to get your application in for the award.

**MAKING YOURSELF  
ATTRACTIVE FOR YOUR  
INSURANCE UNDERWRITER**

*We are all experiencing a challenging insurance market. Fewer underwriters, higher settlement costs, and lower investment earnings have put pressure on carriers to increase rates and reduce coverages. In addition, an aging pilot base is becoming less attractive to underwriters.*

*So, how do you make yourself more attractive?*

*Think of your insurance renewal as a college application. Remember those days? We sat down and wrote essays about ourselves to make us desirable to the admissions office. In addition to answering the standard questions supplied by your insurance broker, it's now advisable to add information that sets you apart from the average pilot. One of the easiest ways to do this is with your [CJP Gold Standard award application](#).*

*The Gold Standard application lists all the things you do that make you a safer pilot and a more desirable risk.*

*Things like additional training, adherence to CJP SOP's, and an extensive list of additional activities you have accomplished. The application includes proof of completion and certificates that document your efforts.*

*The Gold Standard application is strong evidence to your underwriter that you strive to operate your aircraft in a safe and professional manner. On your next insurance renewal application, simply attach your Gold Standard application to the document.*

*It just might make a difference!*

*– David Miller*

The work we did with Presage up through the convention is leading to some excellent new SOPs for our members. Since the convention, we have established a specific subcommittee, led by Jonathan Bailey, to bring an STL training program to our members. We have also been working to establish a web page full of reference materials to keep you up to speed on the initiative. You can find the new webpage [here](#).

In parallel, we have been working with FlightSafety International to create a special curriculum for our Safe to Land Initiative. The coursework will include classroom instruction, with an accompanying online ground school module, a focused STL simulator session as well as integration into parts of our regular 61.58 simulator training. We expect beta testing of the coursework to be completed this summer so we can begin to roll it out to our members.

There have been numerous articles written about CJP's STL program, including one by Steve Lasday, senior feeder flight safety specialist at FedEx and another by Matt Thurber of *Aviation International News*. You can check those out in the recap following this message.

### **CJP Park City Regional Session on Departure Runway Analysis**

Lastly, we had a very successful CJP Park City Regional event at the end of March, where we shared flight planning lessons from my recent Air Journey trip to Cusco, Peru along with other CJP board members Randy Broiles, Stuart Fred and Kirk Samuelson. Air Journey rolled out an outstanding itinerary for us, including Mexico City, Cartagena, Columbia, the Galapagos, the Peruvian Amazon and Cusco (Machu Pichu).

That last stop was a truly interesting flying challenge, given the airport elevation of nearly 11,000 feet. As you can imagine that elevation brings all sorts of challenges with flight planning, but at Cusco, the airport is also surrounded by mountains above 20,000 feet!

We made great use of runway analysis planning

tools like APG, and I shared a detailed summary of all the flight planning we had to do for that airport during our Park City Regional event. A key takeaway from this exercise is how important obstacle departure planning can be even at low altitude runways if there is surrounding high terrain.

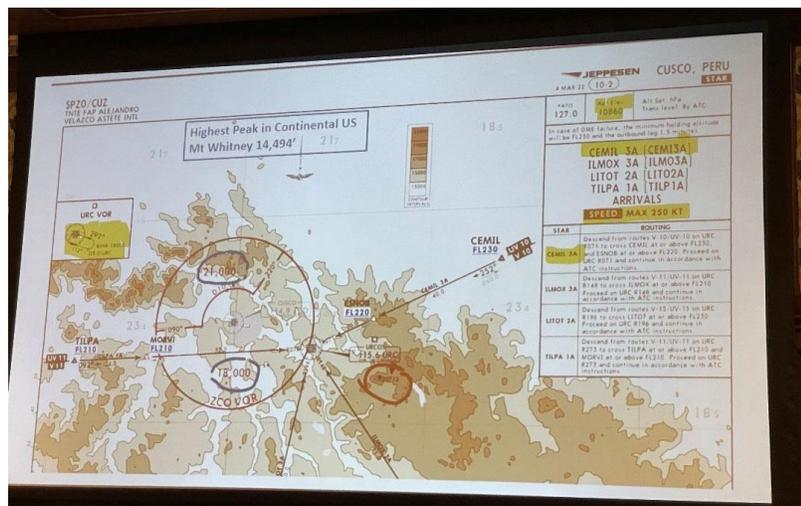
One example of an issue with departures from a low altitude airport was raised by Phil Friedman, who flies a Mustang out of Van Nuys in California. I have to thank Phil for bringing forward this example...

Most of us would normally run our takeoff data for an airport like Van Nuys by simply loading the temperature, runway, winds, and gross weight and get our V speeds and plan for an engine out using the normal 1,500-foot level off altitude. But when there are distant (or not so distant) obstacles, as in the case of Van Nuys when taking off north (Runway 34L) you

could be surprised by the effect of the terrain that, in this case, is only 9 miles north of the field.

Although the airport is at 800 feet MSL, the terrain northwest and northeast is 3,200 feet higher. Clearing that terrain north of the field would require a 3.5 degree or 5.8% gradient... yet one engine inoperative after takeoff at gross weight and only 20 C will produce approximately 2.2 degrees of climb (3.7%). The actual number depends on aircraft model, but this is close for virtually all Citations on one engine. This makes the Canoga and Harys SIDs to the north problematic unless we offload some fuel. But there are alternatives...

A key point here is that once we lose an engine, there is no requirement to fly a SID, even if it's your clearance. Engine out is a contingency (emergency) procedure. You must have a plan to avoid terrain, and that can include a holding pattern over the airport, or any other procedure that keeps you away from the terrain, but it doesn't mean you have to stay on a SID. Many SIDs have gradients unattainable on one engine. Having such an alternative plan enables you to depart without offloading fuel... but creating the plan can be a challenge given all the math and performance charts that have to be referenced. But runway analysis tools like those from APG, Foreflight, or FlightPlan.com, all provide you with pretty straightforward engine out alternative procedures with their flight planning Apps. If you haven't tried one of these tools, I'd highly recommend it.



Even though our trip to Cusco presented a rare and extreme case, you'd be surprised how often obstacles along a SID could be a problem in the event of an engine failure. We will be putting together a webinar on this to share with all of you on our Safety page in the near future, referencing some of the information we went through together at Park City.

*Fly Safe!*

*Charlie*

## Safe to Land Initiative Garner Attention, Praise from Across Industry

The rollout last fall of CJP's new "Safe to Land" initiative to combat runway excursion incidents on landing immediately caught the attention of several across our industry, including the following article by *Aviation International News* Editor-in-Chief Matt Thurber:

### Pilot Association Aims to Curb Runway Excursion Accidents



The vexing problem of runway excursions after landing isn't going away - these aircraft accidents continue to happen. To help its members, the Citation Jet Pilots Owners Association (CJP), in partnership with the industry, commissioned a study and simulator testing not only to assess pilots' existing performance but also to develop a more logical and realistic method of evaluating the stability of approaches. Results of the study exceeded CJP's and

study partner research group Presage's expectations. ([Read More](#))

CJP also received welcome feedback about Safe to Land from outside the business aviation industry - in fact, from one of the largest commercial aircraft operators in the world. Check out the following article written by Steve Lasday, senior feeder flight safety specialist at FedEx, and published in a recent company safety newsletter:

### Good for Landing? *Maybe...*

by Steve Lasday

Runway excursions continue to constitute an extremely costly hazard to commercial flight ops. To mitigate this, the Citation Jet Pilots Owners Association (CJP), in partnership with the industry, commissioned a study and simulator testing not only to assess existing performance, but also to develop a more logical method of evaluating the stability of approaches.



CJP's own Safety and Education Foundation, FSI-ICT, Textron Aviation, Garmin, NBAA, and the Air Charter Safety Foundation all cooperated to conduct the research, with FSI-ICT donating time in Citation simulators at their Wichita training centers.

The research effort was prefaced by the Presage Group sending out a survey to over 200 Citation pilots about their decision-making process during stable and unstable approaches. The survey responses were evaluated by a working group who next then developed new instrument and visual approach procedures and callouts. Using the sims, 22 CJP members flew more than 200 approaches to evaluate the new procedures and fine-tune the Safe to Land initiative. Even though this effort was aimed primarily at bizjet ops, the research findings apply to any aircraft.

#### Existing Stabilized Approach Criteria

- Stabilized at either 1,000' AFE (IMC) or 500' AFE (VMC)
  - Gate criteria (typical) = gear down, flaps set,  $V_{ref} -5/+20$  kts., stabilized power  $f$  descent rate, less than or equal to 1/2 scale deflection on horizontal/vertical guidance indicators
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- At either gate - pilot determines either to continue approach (stable) or go-around (unstable)

### Research Findings

- Runway excursions still occurring - stabilized at either 500' or 1,000', but then approach transitions to an unstable one, which significantly increases opportunity for runway excursion
- How unstable is too unstable? Can approach be safely salvaged? "Last + best" criteria?
- Optimum finding is that it makes sense to set limit boundaries beyond the normal accepted gates
- Area between existing gate and final decision point = yellow caution zone (YCZ)
- YCZ - pilot can continue to correct instability that's not in agreement with stabilized criteria yet still committing to discontinue mitigations at new limit point
- Essentially looking at decision-making below 1,000' AFE, closer to ground = higher risk
- Sweet spot = 200' AFE

### Mitigated Ops

- Additional new approach gate of 200' AFE
- Check status at each gate and verbalize, e.g. "configured" (1,000'), "stable" (500'), and "continue" or "limit - go around" (200'), note - "continue" as opposed to "landing", due to expectation bias
- Condition - any time a/c becomes below 200' = mandatory go-around (opportunity to safely re-stabilize gone)
- Runway centerline and Touchdown Point Limit (TPL) also evaluated with specific value exceedances
- Stabilized approach gates/limits derived are logical, simple, and consistent

In reaching out to CJP, Steve further expressed his "sincere thanks for your outstanding efforts to mitigate this area of operational risk, for all pilots, not just Citation drivers," adding that he will be "closely watching for additional follow-on resources and, of course, please let me know if in any way our group can contribute to this outstanding and critical safety initiative."

## New CJP Safety Subcommittees Get to Work

Two new CJP Safety Subcommittees are hard at work to further improve safety across the Citation operator community. Here are updates on those efforts from subcommittee leads Jonathan Bailey and Endre Holen.

### New Website Supports Ongoing Training on Safe to Land Procedures

by Jonathan Bailey, CJP Safe to Land Subcommittee Lead



CJP members were introduced to the Safe To Land (STL) initiative at the 2021 CJP annual conference at Indian Wells. Presentations by Charlie Precourt and Bill Curtis of the Presage Group explained key insights about CJP operations and Go-Around decision making learned through a member survey conducted last year. Presage Group analyzed the data, and a working group was formed to develop gates (altitudes) and limits (position, airspeed, configuration) that would take the uncertainty out of final approach and landing decisions. The results of this work were presented to CJP members as the STL Cue Card.

The program is designed to shine light on a very dark area: about 80% of all landings are in visual conditions, and about 50% of accidents are runway excursions. Traditional Go-Around training is done at minimums in IMC and does not address a majority of real world operations. David Miller is quoted, "The Go-Around button doesn't have an owner's manual." Go-Arounds entail risk too, so knowing when the scales tip is key to improving the runway excursion record.

The final phase of the STL program rollout to CJP members is training. As a part of the initial working group, volunteer pilots were given instruction in the basic STL framework to apply in FlightSafety simulator scenarios. Comprehension and application of the STL procedures was found to be quick, but as expected this new tool requires initial and ongoing training to become ingrained in our flying habits. Our goal is fleet-wide adoption of the STL procedures.

CJP is standing up a dedicated STL website that will be the home for STL reference materials, training videos, pilot testimonials and program feedback. Most importantly, CJP, Presage and FlightSafety have started work on a stand-alone STL simulator training course that will be available to all CJP members. The course will include ground school and scenarios in the simulator. The course is under development and should be ready prior to this year's CJP Convention.

While the STL initiative is tailored to CJP operations, this concept of realistic gates and limits has been adopted by airlines with immediately measurable improvements. We are truly charting a new course for the safety of business jet operations. By this time next year, we hope that many CJP members will be using the STL process for every flight, sharing the benefits with other pilots, and helping to shine light where there was darkness.

## **Legacy Subcommittee Tackles Safety Concerns in Citation 500/501/550 Models**

by Endre Holen, CJP Legacy Subcommittee Lead

We have recently constituted a new "Legacy" subcommittee within the Safety Committee. The purpose of this subcommittee is to provide a voice and energy to representing the owners of these magnificent older airplanes. So far, Josh Hochberg, Michael Seidman and Bruce Baebler are involved in addition to me, David Miller and Trent Corcia. We are just in the early stages of getting organized. Plenty more to come!



As a first step, we decided to launch a survey to understand the airplanes and owner group better. We targeted owners with airplanes without a fully integrated Proline or Garmin suite from the factory. This is a larger group than the traditional Legacy definition. We are still trying to figure out what to call this group but figured we would get started working and solve that later.

A big thank you to all the folks who filled out the survey. Well over 30 percent of the potential respondents completed the survey! The survey results are posted on the forum. We encourage you all to read it. It has some great data in it.

Some highlights:

- These aircraft represent well over 20-25 percent of the CJP aircraft
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- While a wide variety of equipment exists, over 64 percent have a Garmin 750/650 installed
- Over half of the owners are first time jet owners-many have less than 500 hours in jets
- Understanding and improving simulator training options are high on the wish list
- Also, maintenance options and practices are big concerns for the owner group

There are many more nuggets in the findings. So what does this mean for the initiatives? We are still forming the list of priorities but here is what we are thinking so far:

1. Working with training providers to make visible current simulator setups and improving offerings to match the actual installed base of avionics
2. Create forums and activities to let new, often first time jet owners, meet "old" owners and partners for information sharing, mentoring and community
3. Create a list of maintenance shops that specialize in Legacy aircraft and enable better information sharing about maintenance practices
4. Help augment CJP "What Good Looks Like" videos and other Safety Committee activities to include legacy where appropriate.

We are already on our way. We have had promising discussions with FlightSafety, Loft and Simcom. They are all interested in serving our community better and looking at ways to get better information to us and what they might do to upgrade their simulators over time. Also, Textron have been proactive in reaching out and we are engaging with a team from support, parts and service centers to share experiences. We will continue to make progress on the initiatives.

You will be hearing more from us as we get moving. Comments and help are always welcome!

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## Scalable Proactive Safety

*(The following is reprinted with permission from the November/December 2021 issue of [Business Aviation Insider](#), the member publication of the National Business Aviation Association.)*



It might be tempting to lump business aviation safety programs all together ("safety is safety"). However, in reality, there are some significant differences between large and small operators when it comes to promoting and implementing a robust safety culture.

"There's a lot more variety in how small flight departments are operated," said Joe Samudovsky, a member of NBAA's Small Flight Department Subcommittee and flight safety officer and captain for Brandt, Inc., which has a one-aircraft, two-pilot aviation operation. "Any sort of safety tool or system needs to be scalable to the size of the small operator. If not, it might be too cumbersome for them to use."

Samudovsky credits his chief pilot with recognizing the need to have someone solely responsible for safety.

"I did a lot of research, and we are now partnered with the Air Charter Safety Foundation. We now have an SMS, we have access to safety information and flight risk assessment tools, we have benchmarks in place, and can submit reports and have them analyzed. By collecting data, we have been able to start a more formal process to document safety risks and build benchmarks going forward."

Samudovsky and his chief pilot also have started working with their local FSDO and are looking into eventually establishing a formal Aviation Safety Action Program. They haven't ruled out using a Flight Operations Quality Assurance (FOQA) program, an important data benchmarking tool generally used by larger flight departments.

### The Value of SOPs, Networking

Brandt's two pilots do briefings pre- and post-flight, covering things that went both wrong and right. They have safety meetings every quarter and take recurrent training as a crew once a year.

"Since it's just the two of us, we want to make sure that we have a mechanism in place that provides a way to objectively look at how we're operating and identify any areas where we may be getting lax," explained Samudovsky.

Networking with peers is also extremely important, according to Samudovsky. A larger flight department at their airport invites the two Brandt pilots to attend the larger company's quarterly safety meetings, where they can share their experiences.

"They've been great," declared Samudovsky. "Even though we may have different ways of operating, we're still operating in the same airspace. They have a safety officer who has helped mentor me and expand my knowledge."

Finally, the Brandt safety officer notes that, especially for a small operator, buy-in from the principal or CEO is key to the flight department maintaining and improving its safety. "They are totally on board and see that we take things seriously," said Samudovsky of his company. "We have built their trust in us."

## Personal Accountability

Mike Whannell, chief pilot for Jack Henry & Associates and a member of NBAA's Small Flight Department Subcommittee, notes that it does not require a large group of people to achieve a higher level of professionalism.



"True safety culture promotes doing the right thing even when no one is watching," said Whannell. "Even a single-pilot operator can develop an "IM Safe" checklist and flight risk assessment tool. It's all about keeping yourself accountable."

Flight data analysis tools are available and should be used whenever possible - especially by smaller operators - as a means of benchmarking their normal and abnormal flight operations against their peers for safety assurance purposes, suggested Mark Larsen, director of safety and flight operations for NBAA.

"Full-scale, FAA-approved FOQA programs may be ill-suited for many small operators, though these operators still can benefit from a review of these data analyses and work with their training providers to tailor recurrent training," explained Larsen.

"The training companies do an amazing job," added Whannell, "but they also need to understand the key role they play in instilling the safety culture of continuous improvement with departments of just one or two pilots."

Also, Whannell, like Samudovsky, encourages larger flight departments to invite their smaller counterparts to company safety programs, as well as to events held by regional business aviation groups.

"We have the responsibility as industry members to regularly check in with that smaller operator, and not just have a bystander mentality. There needs to be an accountability culture by all of us," he said.

Paul Ratté, director of aviation safety programs for USAIG and a member of NBAA's Safety Committee, has a perspective on this topic derived from his perch in the aviation insurance sector.

"Small flight departments have an interesting clash of pros and cons," noted Ratté.

"On the one hand, it's easier to generate unity of purpose with a small group," he explained.

"On the other hand, it's easier to get set in your ways, and you get fewer opinions. It's easier to win trust when there are just three or four of you, but it's harder to maintain that trust if one cog gets loose in that mechanism and throws a wrench into the whole operation."

Some sort of aggregation of safety data from similar small operators is very important for benchmarking, noted Ratté.

"People need to get over the sense that it [benchmarking] is not needed," he said. "They [small operators] need to know, 'Is this normal?' It's hard to know what's 'normal' if you only look at your own operation and you fly a statistically small number of cycles."

Pilot roundtables for smaller operators can also be very helpful, noted Ratté, who, like Whannell, also believes that regional business aviation groups should make a concerted effort to invite and include smaller flight departments in their membership.

Review NBAA's safety resources at [nbaa.org/safety](https://nbaa.org/safety).

## WHEN ONE IS THE ONLY NUMBER

Jim Lara may be known to many in the business aviation community as the principal of Gray Stone Advisors, an aviation consultancy. What people may not be aware of is that he is also a one-person, one-aircraft flight department.

"We use our [Beechcraft] Baron, usually at least 15 hours a month, to respond to our client's needs," said Lara.

There are many such owner-pilots in the industry, and their commitment to a robust safety culture may be one of the most challenging tasks they face, since no one is looking over their shoulder.

"You have to hold yourself accountable and responsible at all times - to your family, to the other folks in your organization, and all the people in the industry," said Lara. "It's all about risk mitigation."

Lara feels that being current is just meeting the bare minimum.

"You need to be proficient and at the top of your game all the time. It's excellence versus minimum standards, meaning that it can be expensive in terms of time and money," noted Lara. "You need to be even more vigilant and disciplined because it's just you."

As a one-person flight department, Lara said that he is always making at least several decisions before he flies.

"First, am I into it? It is helpful to me to first have significant introspection. Second, I draw the line at a 12-hour duty day - and that begins the moment I start working, not just getting into the airplane. It takes me at least an hour to shift my mindset from the business side to the aviation side," he said.

Lara keeps a black book in his Baron. After each flight, he jots down the things that did not go well.

"When I go to recurrent training, we see where patterns have developed and can use that for points of emphasis during the training. But that will only work if you are being honest." Lara also asks his passengers for feedback after every flight.

Lara has a simple, checklist-driven SMS that he uses for every flight. "Everything needs to be standardized as much as possible," he said.

Citation Jet Pilots is the world's premier Cessna Citation aircraft owner-pilot organization. If you are a Citation owner-pilot who wants to operate your aircraft more safely, professionally, and economically, this is the place to be.