

The Napkin has no Back

Mark Jones Jr

Both napkins and envelopes are paper products, and as far as I can tell, both are folded. Furthermore, usually napkins and envelopes are quadrilaterals. Maybe this is why we confuse them, because they have so much in common. You can make notes on the back of the envelope, because it has more space than the front, which is true, at least, for used envelopes already marked with an address, a stamp, and the like. (I used the phrase "the like" because I couldn't figure out how to briefly discuss the fact that there are two addresses and two stamps without repeating myself and sounding repetitive and saying the same thing more than once.) On the other hand, if the envelope is unused, you can fit more notes on the front, and you don't have to worry about bumps in your cursive caused by the seams of the paper. I don't really understand why we are making so many notes on envelopes, but the back of the napkin is the same as the front, unless it has a picture on it. For the sake of argument, we can assume a symmetric napkin and leave the illustrated napkin as an exercise to the reader. There is one more notable exception: The mobius napkin only has one side. Thus we conclude that the napkin has no back. At times, when we use sayings like "the back of the napkin," it causes strife. Strife is a strong word, and I have a theory for why simple things cause strife and disagreements that will have to be saved for a later time. Nevertheless, the fact remains: Sometimes we disagree.

Some of our disagreements, like the one above, are amusing, and others are subjective. For example, I could ask, "Is fall the best season of the year?" I've recently moved out of Florida and back into a state with more deciduous trees, and the leaves have started falling. Some of my favorite colors are beginning to emerge, though not in the sense of "emergence," which is a word we probably don't agree on even though we throw it around with increasing frequency these days. This season reminds us, though, of an aphorism about trees that we probably do agree on. The best time to plant a tree was thirty years ago—the second best time is today.

Flight test has its own set of both aphorisms and tropes, and if you are in Savannah this week, I hope you seek out Nathan "Cap'n" Cook, who will present Horizontal Time Safety Margin, a paper I've read and am quite excited about—but after his talk you can ask him about tropes, in particular. (Do you ever end a sentence with a preposition and simply add a hyphenated phrase to avoid the grammatical faux pax?) Sometime after the Symposium, when the Society publishes them on their website, you should read the paper, and though I disagree about the origins of Time Safety Margin, the application of this old idea to ground testing is brilliant. Of the many flight test colleagues I call my friends, Cap'n is one of the few with whom I can disagree on just about anything without being disagreeable.* (Note: Clay Harden introduced to me this phrase, "disagree without being disagreeable.")

In May, the Flight Test Safety Workshop featured a tutorial on "the basics," and I suspect that we don't all agree on what the set of "the basics" actually contains. You can find the video and an unedited transcript on the website along with videos of most of the presentations: Tutorial - Brilliance in the Basics, Raymond (RJ) Schreiner, Pivotal Aero. (The transcript is an AI creation, so your comments on its value would almost certainly be valuable, but I'm certain we can't agree on the value of AI or even its definition.) RJ included a slide from Beaker's paper (published in FTSF 19-01) that illustrated one author's proposal on how to define uncertainty. That's a monumental task. It's so difficult, in fact, that when I asked Microsoft Copilot (the only AI allowed on my work computer) the definition of the word uncertainty, even it responded, "not certain." I followed up by asking if it could provide a synonym, and even then, it said, "unsure." I don't know how to improve the confidence of large language models, but I am sure of three things: 1) no one agrees on what actually goes in the two quadrants on the right side of the quad chart Wickert used to define uncertainty, and 2) you should never tell anyone all your secrets. Before we discuss the quad chart in detail, we must ask a more fundamental question: So how should we respond when we disagree?

I've grown to believe that this question, answering it, is actually one of the fundamentals, the basics. And I've grown to believe that it's one for which we lack brilliance. First, I believe we should respond. Procedurally it is appropriate to respond with one's call sign

to acknowledge receipt of a radio call. That feels like a norm we should adopt in all our communication. Second, I believe we should seek first to understand. (I put that one second on purpose, in part because I was amused that so many of Steve Covey's habits are things you should do first, like "begin with the end in mind.") Third, I believe we should disagree publicly more often, as a profession. Fourth, I think we should be prepared to cultivate an argument. I won't expound on any of these four, though each could be its own TED talk. Speaking of "TED talks" can we agree that the term is overused and ought to be replaced, though it does convey a useful idea? Does anyone have a suggestion for what phrase to use in its place?

Back to our disagreements. Beaker thinks Bayes Factors can be done on a piece of scratch paper (not on the back of a napkin). I'm not sure anyone,

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who hasn't heard his SETP talk from this September's SETP symposium or read his paper on the topic, can actually do odds reliably, unless they gamble frequently. I know I can't, and I have two degrees in math. I do think anyone, everyone, can do elementary probability on the back of an envelope. However, I believe, deep in my heart where convictions grow, that probability is a topic we aren't good at and should be, and it should be done on a legal pad, not a napkin. I think numeracy is one of the basics, and we continue to reveal an utter lack of brilliance with this particular subset of the domain. We aren't going to get good at it, or any of the basics, unless we are willing to work at it. Maybe the most surprising thing is what this numbers guy thinks about the solution: Words. I believe that the words we use to talk about uncertainty are the seeds we can and should plant today, that we should water and weed tomorrow, and someday, three decades hence, we'll reap the fruit of our efforts, which I hope will be a safer profession, something we all can agree on.

I don't think this conversation is over, and I hope you will do two things: 1) Send in your thoughts, opinions and feedback, and 2) Tune in for the next edition, where we discuss the "wave theory" of disagreements and why small frequent feedback is better.

Annual Report of the Flight Test Safety Workshop

Editor's note: I was staring at the draft FTSF for about ten minutes yesterday. It felt like an eternity. I reread the email from Chia where he provided a rapid fire debrief of the Flight Test Safety Workshop, which included a line or two about almost everything that happened. Reading his notes made me want to be at the FTSW or want to watch one of the videos immediately. It was inspiring and informative at the same time. I couldn't decide if the format, raw and rapid fire, was acceptable for publication. I appreciated it, and I don't think I could edit it without losing the pathos that I experienced, which is, in my opinion, the most important part. So here it is, unedited, and I hope it brings you the same information and inspiration it brought me.

I think it was once again a very successful FTSW, but I probably have a bias!

There are definitely some specific things I like about the FTSW vs. SETP or SFTE symposium. First, the Tutorial allows for a deep dive into certain topics, and this year was no exception with RJ, Marty and Mike doing a great job covering the basis of a solid flight test organization. Your prep in the Flight Test Safety Fact of Head, Hands and Heart was referred to numerous times, a great way to keep things simple when evaluating your flight test organization for the basics. The Tutorial led to some great questions and post presentation discussions, which leads me to my second favorite part of the FTSW, Panel Discussions. Our standard is 25 mins for a paper and 5 mins for questions—it's great and allows for a good variety of papers to be presented. However, the addition of the Panel Discussion allows that deep dive into a topic and lets the conversation naturally wander as needed. Inevitably that leads to my third favorite part which is the networking that continues into the coffee break. Because the event is smaller (113 registered attendees, but a few no shows) it is easier to make connections with the speakers as well as others and continue those follow-on discussions.

Terry Pearce and Honda did a great job hosting us for the technical tour of their facilities. It's always interesting to see how others organize their lab / sim / test facilities.

As for the papers, great stuff all around. Jeff's paper on the Evolving Landscape of Flight Test Safety is a call to action to understand and look to adopting new technologies (such as LLM) into our flight test processes. Jeff gave this demo which might interest you: https://alpha.afta.gladstone.ai/tha.

Taylor's brief on Simplifying THAs was, I thought, a great methodology to "show your work" and good background on how the THA was created in the first place. Even if their methodology is not adopted by an organization, I thought it was a great brief to help train folks on how to write THAs.

Gulfstream was the best paper, and they had a clear logical analysis of risk when conducting single engine AFCS development and certification together with a very simple solution. Artificially raise the elevation of the airport where you can either re-light an engine in time and/or glide successfully to the real runway. Very well put together by that team.

Kevin's paper on Testing Like It's 1959 was a great reminder that you can't convince leadership about the safety message/requirements unless you have credibility. One of my favorite takeaways from that was to give training to our team about what your signature really means when you approve a test plan.

Addison gave a great update on 4040.26D and the incorporation of an SMS into the document. There are definitely some future challenges with some of the requirements with the sharing of information but problems worth solving.



Turbo was of course awesome with his discussion on going back in time to stop accidents/mishaps. I'll say no more!

Archer had a great presentation on the risk benefits of different piloting options for their class of vehicles. On the surface, I would have expected pilot out of the loop as being the hardest, most complex option, but interestingly since the test profile is so constrained it actually was simpler and easier to test, making contingency planning simpler, especially when working with the authorities for approval.

For Tom Hill's presentation, I'll just say I was once again reminded that Sulu is at a higher level of consciousness than the rest of us cave dwellers....

It was great to have Turkish Aerospace Industries present – exciting to see this not just be a US focused workshop.

Noam's STPA brief helped shed further light on the mysteries of STPA and I loved the "hazards river" illustration. Sadly, I still need more to make practical use of it.

For the last presentation, Pat gave an update on FTTEC, which was a great message for some of the startups in the crowd who had still not heard about what this organization is up to. Lots of discussion afterwards.

That evening, we had our first official Keynote Dinner and Awards Ceremony. Andrew Klischer from Samaritan's Purse gave a fantastic presentation on the amazing things they are doing with aviation around the world helping folks. We too often forget about the good aviation can do but instead get bogged down in the weeds looking at compliance requirements and data. This was a good reminder of the greater purpose we often serve when working in flight test. Finally, we had a chance to honor our Award winners, with the Best Paper, Tony LeVier and the brand new Hugh Dryden Award. This was Turbo's dream, to make an awards dinner at the FTSW, and he did, of course, a fantastic job MCing the evening and making it happen. Definitely the best way to end the event, or maybe that was the scotch at the hotel bar afterwards. My memory is a little murky on that...

Subcommittees of the FTSC

Test Pilot School sub-Committee	AI sub-Committee	Charter sub-Committee
Stuart Rogerson, Textron, FTSC Chair	Stuart Rogerson	Pat Bearce
Jonathan Knaul, NTPS, TPS FTSSC	Addison Tower	John Hed
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	Troy Soileau	
Workshop sub-committees		
North American 2025	European 2025	SMS Recognition sub-Committee
Stuart Rogerson	Stuart Rogerson	Bruce Remick
Terry Pearce	Bruce Remick	This committee is NOW soliciting
Bruce Remick	Jeff Canclini	volunteers!
Barbara Gordon	Marco Rizzato	
Pratheesh Karunakaran		



Awards of the FTSC

Hugh Dryden Flight Test Safety Lifetime Achievement Award

Tony LeVier Flight Test Safety Award

The Dave Houle Award for Best Flight Test Safety Workshop Presentation (Sponsored by Bombardier)

Hugh Dryden Flight Test Safety Lifetime Achievement Award

This year, the Flight Test Committee Safety introduced and awarded for the first time the Hugh Dryden Flight Test Safety Lifetime Achievement Award. This award was established by the Flight Test Safety Committee to formally recognize a single individual who, over the course of his or her career, made significant has contributions to flight test safety for the flight test community as a whole or for specific organizations. This award is specific to flight test safety achievements and contributions and not safety in general. The unique design of the hand the holding X-15 represents Mr. Dryden being the guiding hand for that historic program.

Citation: Bill "Tony" Randall began work at Bell in August 2011 as Chief of



Award presenter Joe Phillips, Tom Currie, Stuart Rogerson. Hugh Dryden Award winner Tony Randall is not pictured.

Flight Safety. He was instrumental in leading the development and implementation of Bell's Corporate Safety Management System. Because of his outstanding leadership, Bell was the first aircraft OEM to have an accepted SMS under the D&M SMS Voluntary Program. Tony used his expertise to aid other OEMs as they developed their own SMS programs. As part of Bell's SMS, he developed a Just Culture Process to investigate safety incidents in such a way that lessons learned can be extracted and passed to the rest of Bell team.

Tony was instrumental in embedding Flight Safety Officers throughout all programs. He developed, implemented and continuously updated the Bell Flight Risk Assessment Process Tool. He instituted a yearly Bell Flight Operations Safety Stand Down attended by Bell flight personnel world-wide. Additionally, Tony was the co-chairman of the product safety board ensuring long term safe operations across the Bell fleet of helicopters and tiltrotor aircraft.

Outside of Bell, Tony is a past member of the GAMA Safety and Accident Investigation Committee, past chair of the Vertical Flight Society Safety Technical Committee, a plank owner and current Steering Committee member of the US Helicopter Safety Team, and a former Steering Committee member of the Vertical Aviation Safety Team. In 2024, Tony was awarded the HeliOffshore Safety Champion Award for work on the developing a potential Safety Rating System for Helicopters.



Tony LeVier Flight Test Safety Award

Citation: Chris Glaeser, Cirrus Aircraft, made significant contributions to two major international aviation organizations in 2024: the Cirrus Design Corporation and the Experimental Aircraft Association. This includes the initial implementation of a corporate wide Safety Management System, including Experimental Flight Test and Production Flight Test, enhancing flight test safety at Cirrus. A key safety enhancement is the new Flight Data Management program for all four Cirrus product lines that integrates flight test, production and all customer operations for over 1,200 aircraft. His contributions to the EAA included the creation of the EAA Flight Test Manual (including new avionics flight test procedures), flight test articles in the EAA Sport Aviation magazine, a guide for flight testing of previously owned Experimental Amateur-Built aircraft, and exceptional contributions to the EAA Board Safety Committee.



Award presenter Mark Jones, with winner Chris Glaeser, Stuart Rogerson

The Dave Houle Award for Best Flight Test Safety Workshop Presentation

"AFCS Single Engine Approach Test Safety Improvement" - Tyler (T.J.) Lawrence, Gulfstream Aerospace, Tobias van Esselstyn, Gulfstream Aerospace. View the presentation on the Flight Test Safety Committee website at this link: https://flighttestsafety.org/2025-greensboro-nc/501-9-afcs-single-engine-approach-test-safety-improvement.



Award presenter Dave Lewandowski with winners Tobias van Esselstyn, T.J. Lawrence, Stuart Rogerson, Award Presenter Roger Huneycutt



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"Improving Flight Safety in External Store Separation with Probabilistic Methods" Maj Marcus Preisighe Viana, Brazilian AF, Maj Bruno Candido de Paula, Brazilian AF

Arango Award

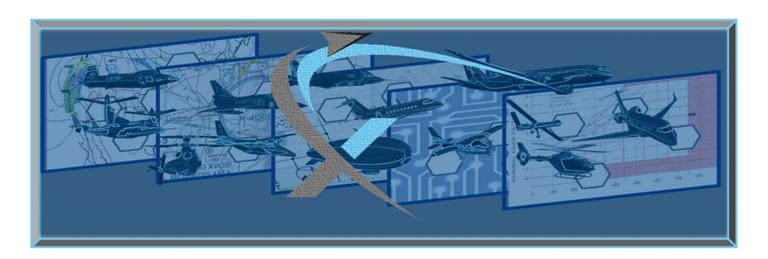
"Lessons Learned From Aircraft Accidents in Powered-Lift and Fly-By-Wire Designs" Martin Shubert (AF), Tiltrotor Flight Test Consulting LLC David Sizoo (M), David Sizoo **Aviation Consulting**

Eta Award

"Pincing the Ice: Eurofighter Typhoon Low Friction Runway Testing" Sqn Ldr Jim Fordham, RAF (PAM) Flt Lt Matthew Lyen, RAF Flt Lt Max McNamara, RAF (PAM) Lt Col Austin Baker, USAF (AM)

Tenhoff award

"Envelope Expansion of an Independently Developed Supersonic Demonstrator Aircraft" Tristan Brandenburg (M), Boom Supersonic Erin Young, Boom Supersonic



On Conditions - the Flight Test Safety Podcast

Episode 70 – Critical Incident Response with Louise Cullinan

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Contact Flight Test Safety Committee

Stuart Rogerson, Chairman

chairman@flighttestsafety.org Susan Bennett, FTSC Administrator susan@setp.org Society of Flight Test Engineers edir@sfte.org

Society of Experimental Test Pilots setp@setp.org AIAA Flight Test Group derek.spear@gmail.com Website: flighttestsafety.org

Contact Flight Test Safety Fact

Mark Jones Jr, Editor mark@flighttestfact.com