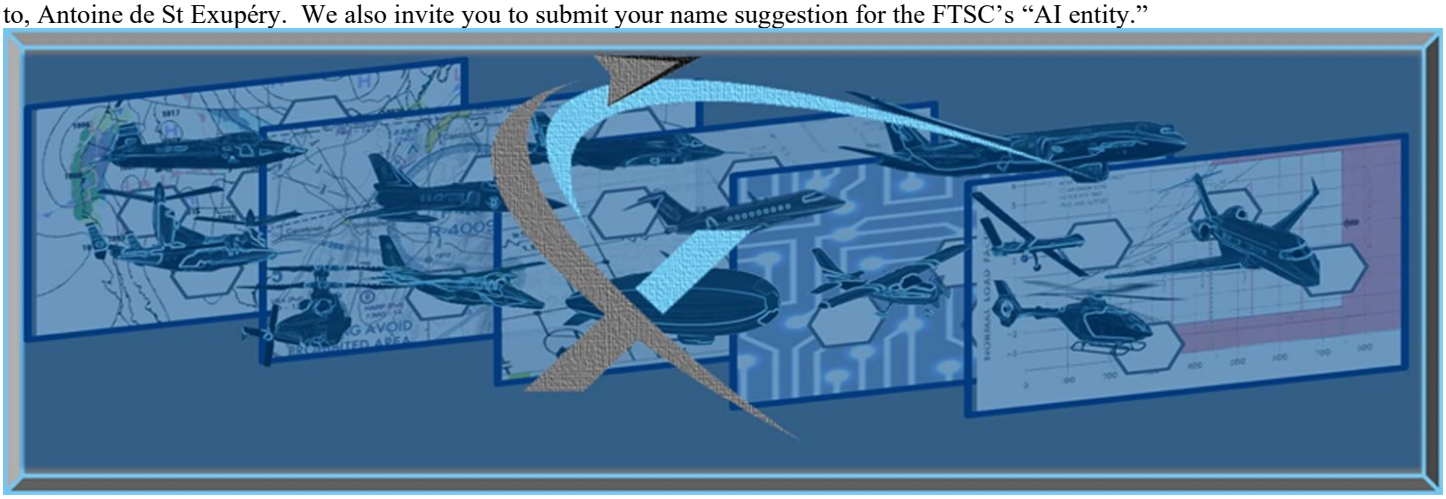
The Culture of Flight Test

"Houston, we have a problem." The iconic words stir, in many of us, a wave of emotions. Many of us recall the face of Tom Hanks and other scenes and lines from the movie. In contrast, I just learned this week that the youngest generation of flight test professionals may not know the story. I encouraged one young FTE to download the movie to her phone before the long flight she and her soon to be husband had planned. As I stood there amongst the cubicles, wondering how such an incredible story had not been told, ideas swirled around in my mind like the plume of a rocket launch. My thoughts raced like the billowing smoke and steam racing away from the base of a launch tower... Once again, I was finding inspiration in Apollo and attempting to use it to inspire and inform. In this edition of the FTSF, we will launch in the direction of outer space with an idea that comes from "culture," that section of the newspaper, or other periodical or website, that captures things like movies, books, and paintings. I'm mentioning paintings because I think you should check out Empty Desk, a painting you can find on the SFTE-EC website (the old one). In this edition, the reader contributed essay takes the main character from another story set in space, a story written by a pilot many of us know and some of us should probably be introduced to, Antoine de St Exupéry. We also invite you to submit your name suggestion for the FTSC's "AI entity."



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Episode 74 – Interview with an OA-1K Test Pilot

Connect with us by joining the LinkedIn Group: "Flight Test Safety Committee."

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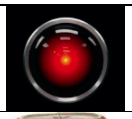
What's in a Name?

The AI Subcommittee invites your input. They intend to select a memorable name for the FTSC AI based paper search tool. Possibilities are numerous…

There is of course Hal 9000.	
Or VINCENT if you want to go a bit more obscure.	
Another interesting suggestion was "Ridley" from The Right Stuff.	

What is your suggestion?

Email us with your comments or ideas: susan@setp.org or mark@flighttestfact.com

The Little Prince and the Art of Flight Safety

Rafa Sánchez

Author's note: *This tale-like article pays homage to Antoine de Saint-Exupéry, not only as the beloved author of The Little Prince but also as a visionary pilot whose life exemplified courage, discipline, and the pursuit of excellence in aviation. The Little Prince is a life manual that encourages applying its lessons to Flight Safety, reminding us that safety is not just a set of rules but an ongoing attitude of care, teamwork, and constant improvement. By blending the timeless wisdom of The Little Prince with the intricate world of flight testing and operational safety at Airbus Military, the story transforms into a modern allegory. In this tale, the Little Prince embarks on a journey across various imaginary Airbus Military Test and Simulation Centers. Along the way, he learns essential lessons about the dangers of routine, the importance of clear communication, and the invisible yet critical network of dedication and teamwork that ensures operational safety. From the A400M's rigorous testing to the Eurofighter Typhoon's system integration challenges, the Little Prince reflects on the parallels between caring for his rose and the meticulous preparation required for flight safety. Through evocative quotations from Saint- Exupéry's masterpiece, the article illustrates how the principles of discipline, responsibility, and shared humanity transcend time, applying as much to aviation as they do to life. Ultimately, the story highlights the profound connection between pilots, engineers, and technicians, united by their shared responsibility of "taming the sky." This piece is not just a tribute to Saint-Exupéry's literary genius but also to his indomitable spirit as a pilot who believed that what is essential— whether in the skies or on the ground— can only be seen with the heart.*

On a small planet, no larger than a hangar, lived the Little Prince.[1] His world was filled with telemetry instruments, test protocols, and a single test track that circled the equator of his tiny home. Every day, the Little Prince meticulously calibrated his sensors and reviewed his emergency procedures, always recalling the wisdom of his mentor: *"In flight testing, discipline is the difference between success and disaster."*

One day, intrigued by rumors of new aircraft in development, the Little Prince decided to embark on a journey to learn about operational safety at Airbus Military's Test and Simulation Centers and Operator´s Air Base. Before departing, he conducted an extensive pre-flight inspection of his experimental craft, reminding himself: *"Daily maintenance routines and pre-flight checks are essential to ensure aircraft safety."*

The A400M and the Danger of Routine

His first destination was the A400M Test Center. Upon arrival, he found a team of engineers and test pilots engrossed in a discussion about the parameters for a maximum load test.

Source: Image generated by AI

"Why do you spend so much time planning?" the Little Prince asked. Without looking up from his calculations, the test engineer replied, *"Every test is unique, little one. Even though this A400M has flown hundreds of missions, no two flights are ever the same. Routine is our greatest enemy."*

The test pilot chimed in, *"Precisely. Meticulous preparation is our best defense against the unexpected."*

The Little Prince nodded, thinking of how he cared for his rose on his planet. "It's like my flower.[2] Even though there are millions of roses, mine is special because I take care of it every day."

The pilot smiled, "Exactly, little one. And that's a vital lesson in operational safety. Every mission is unique, and its preparation must reflect that. Routine breeds complacency, and complacency is our worst enemy. We must remain ever vigilant and never take anything for granted."

Reflecting on these words, the Little Prince thought, *"It is the time I have spent on my rose that makes it so important."* He realized that the quality of preparation and constant care we invest daily is precisely what keeps each flight safe and makes our safety culture uniquely resilient.

The Typhoon and the Power of Communication

Continuing his journey, the Little Prince arrived at the Eurofighter Typhoon integration hangar. There, he observed a heated discussion between a systems engineer and a test pilot about a flight control software anomaly.

"Why can't they agree?" he asked an avionics technician observing the scene.

The technician smiled and explained, *"In the development of critical systems, clear communication between disciplines is vital. The pilot experiences anomalies in flight, but the engineer must interpret and resolve them in the code. Without mutual understanding, we might overlook crucial issues."*

As he watched the exchange, the Little Prince remembered: *"Language is the source of misunderstandings."* He understood that in the complex world of aviation, clarity in communication could mean the difference between success and failure.

Eventually, the pilot and engineer seemed to find common ground. The engineer turned to the Little Prince and said, *"You see, little one, at first, we thought we spoke different languages—one of flight, the other of systems. But when we truly listened to each other, we realized both perspectives are essential for a safe and efficient system. Teamwork is key to mission success. Everyone involved in flight operations plays a critical role."*

The A330 MRTT and the Invisible Future

The Little Prince's next stop was the A330 MRTT testing station, where preparations were underway for an in-flight refueling test with simulated drones.

The test engineer approached him and said, “In our work, anticipating critical scenarios is fundamental. Each test brings us closer to the operations the aircraft will face in the future.”

Watching the meticulous preparations for the A330 MRTT tests, the Little Prince realized that while procedures and checklists were visible, true safety lay in preparing for what was yet unseen and “invisible”.[3]

The C295 and the Value of Details

Flying further, the Little Prince arrived at a base where a C295 had just completed an unplanned humanitarian mission. There, he found a crew conducting a debriefing.

“Why are you analyzing the flight data so thoroughly when everything went fine?” he asked, puzzled.

The Load Master, who had been part of the mission, replied, *“In flights, the most critical problems often hide in subtleties. Our ability to detect and understand these minor anomalies could prevent major incidents in the future.”*

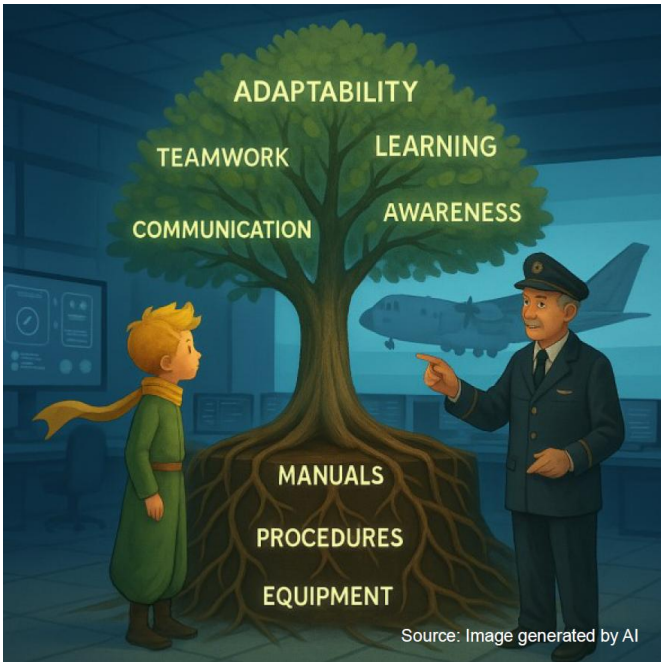
Watching the crew's detailed analysis, the Little Prince thought, *“One can only truly know things they understand deeply.”* He realized that through constant and meticulous study of every detail, engineers and pilots came to “know” their aircraft, developing a sense of responsibility and control that upheld high levels of operational safety.

The Simulation Center and the Essence of Safety

Finally, the Little Prince visited a Simulation Center where new procedures for the C295 were being developed. There, he found a veteran test pilot programming a multiple-failure scenario.

“What is the most important thing in flight safety?” the Little Prince asked.

The pilot smiled and replied, *“Flight safety is like a tree with deep roots and branches stretching toward the sky. The roots are manuals, procedures, and equipment— fundamental and visible. But the branches, which represent how we apply this knowledge in unforeseen situations, adapt, and treat every flight as a learning opportunity, are often harder to see.”*



The pilot paused before continuing, *“And the most fascinating thing, little one, is that we often prevent accidents without ever realizing it."*

Reflections on Responsibility

Back on his tiny planet, the Little Prince gazed at the stars, each one shining like the attentive eyes of the professionals he had met on his journey. He thought of the A400M Atlas, the Eurofighter Typhoon, the A330 MRTT, and the C295—not as mere machines, but as the culmination of dreams, effort, and infinite care.

Adjusting his telemetry instruments, the Little Prince reflected, *"I have seen great aircraft and complex systems, but now I know the true greatness lies in the hearts of those who create and test them. Like my rose, each aircraft is unique because someone has cared for it."*

He recalled the words of his friend, the fox.[4] *"It is only with the heart that one can see rightly; what is essential is invisible to the eye."* Now he understood that in flight testing, the essential element was the invisible network of dedication, knowledge, and shared responsibility.

"In every line of code, every tightened bolt, and every analyzed data point," he thought, *"there is a piece of someone's heart, someone deeply committed to the safety of others."*

Looking at his tiny test track, which, small as it seemed, was part of something much larger, the Little Prince smiled. *"We are responsible for what we tame,"* he said to himself, *"and in aviation, we have tamed the sky itself. Our responsibility is immense."*

As he prepared for his next test flight, the Little Prince felt a profound connection to the great family of aviators, engineers, and technicians, all united by a common purpose:

"For in every test," he thought, *"we are not just testing machines; we are testing our capacity to care for one another."*

Every time we identify an issue during testing and report it, every time we adjust a procedure based on data, we may be preventing an incident that we will never know could have happened.

Endnotes

1. In the context of this Flight Safety story, the Little Prince takes on a special significance: he symbolizes **genuine curiosity**, **humility**, and above all, **the capacity to clearly perceive those essential yet often "invisible" elements that underpin a true culture of safety**. Just like in the original story, the Little Prince journeys through various aviation environments, asking simple yet profound questions. His innocence and open-minded approach encourage pilots, engineers, and maintenance technicians to reflect upon critical aspects frequently overlooked: **human factors**, **communication**, **the continuous care of procedures**, and **vigilance against complacency**. Thus, the Little Prince serves as a reminder that true safety **does not rest solely in written rules, manuals, or technical equipment**. Instead, it lies in the **sensitivity to anticipate the unforeseen**, in the **conscious importance of preparation**, and in the **daily commitment to operational excellence**. Ultimately, in this story, the Little Prince represents **the very essence of flight safety**: an **open and inquisitive mindset**, able to question, observe, and deeply understand the critical importance of **diligently caring for those subtle details that often remain hidden**, yet form the genuine pillars of a robust and effective Flight Safety culture.

2. In the context of Flight Safety, the Little Prince's rose symbolizes **the Flight Safety Culture—a unique, irreplaceable mindset defined by continuous care, attention, and daily dedication toward planning, prevention, and risk management**. Just as the Little Prince's rose was special **not because it was unique among millions of roses, but because of the time, effort, and devotion invested in nurturing and protecting it**, a robust Flight Safety Culture becomes distinctive due to **daily vigilance, constant improvement, and unwavering discipline to combat threats such as routine and complacency**. In other words, **caring for the rose every day is similar to cultivating a proactive safety mindset—embracing thorough preparation, meticulous adherence to procedures, ongoing training, effective communication, and above all, heightened awareness of human factors**. Like the Little Prince who realized **it was the time he spent nurturing his rose that gave it its true value**, aviation professionals must recognize that **genuine flight safety does not simply appear; it is carefully grown each day through sustained effort, emotional engagement, and relentless dedication**. Ultimately, the rose represents a profound truth in Flight Safety: **the quality of preparation and constant care we invest daily is precisely what keeps each flight safe and makes our safety culture uniquely resilient**.

3. In this context, the term ***"invisible"*** **refers to factors, circumstances, or scenarios not yet manifested or easily detectable through standard procedures and checklists**. It includes aspects such as emerging threats, unforeseen situations, or latent conditions related to human factors, all of which require anticipation, intuition, and proactive awareness to ensure flight safety.

4. In the context of Flight Safety, the fox symbolizes **trust, teamwork, and mutual understanding among crew members and aviation professionals**. Just as the fox taught the Little Prince the importance of building relationships through patience, communication, and shared experience ("taming"), aviation teams similarly thrive when they cultivate strong interpersonal bonds, mutual respect, and clear communication. The fox explains to the Little Prince that "to tame" means creating meaningful connections, investing time, and becoming responsible for one another. Likewise, in aviation, a crew that takes the time to build trust through consistent training, effective Crew Resource Management (CRM), and open communication significantly enhances operational safety. Just as the fox emphasizes that essential truths are invisible to the eye and must be seen with the heart, aviation teams must also recognize that **safety relies not only on technical skills and procedures but also on human factors**— empathy, situational awareness, mutual respect, and teamwork. Thus, the fox's lesson in the Little Prince resonates deeply in aviation safety: it is not technology alone, but rather the human bonds, trust, and mutual care cultivated day by day, flight by flight, that form the essential foundation for a robust, resilient, and effective safety culture.

Chia Chat

I hope all of your flight test organizations have had a great start to the new year taking the time to reflect on prior year accomplishments but more importantly focusing on areas of improvement for 2026. Most flight departments have a safety stand down in January to try and solidify a strong safety culture for the upcoming year. Like most mitigations we employ to reduce the risk of our flight test operations, did we check the box with the stand down or make a positive change to our safety culture? That is both an organizational and individual challenge. I know I am one hundred precent guilty of wanting to work through my "to-do list" as quick as possible checking off those boxes, but there are many times we need to pause on a task and make sure it is given the proper time needed to be effective. A safety stand down is definitely one of those items we need to dedicate quality time to, not just during but also after the event. That way we can do our very best to capture and apply those lessons learned or best practices to our daily operations. So, I challenge each reader to take two to three identified opportunities from your safety stand down and make a pledge to apply them to your daily test operations. To quote from the Little Prince talking to the pilot at the Simulation Center, "the most fascinating thing, little one, is that we often prevent accidents without ever realizing it."

In other news, it is hard to believe we are just over two months away from the North American Flight Test Safety Workshop in Fort Worth, TX. We received some great paper submissions, and I think the workshop team has created an excellent line up. In addition, the tutorial will be focusing on Flight Test CRM, which is a topic that every organization can benefit from learning more about. This should be a great two-day event and I am looking forward to our 2nd Annual Awards Banquet on Wednesday evening where we will recognize those individuals who have made significant contributions to Flight Test Safety. Hotel registration is already available, and

the event registration will be out soon. In the meantime, we are also having initial discussions about the next European FTSW. Most likely this will be in 2028 with more details to follow later this year with hopefully a save the date notice.

Our biggest need right now for both workshops is sponsorship. No matter who small the contribution, supporting these events helps the FTSC keep the registration costs down so more people can attend and benefit from the excellent discussions that will be had over those two days. Please consider sponsoring the NA-FTSW right now and for our European partners, please consider committing to sponsoring the next E-FTSW so we know it will be financially viable. We won't commit to the next E-FTSW until we have a few committed sponsors. Reach out to susan@setp.org or myself if you need more information on sponsorship for either event.

On a different topic, I hope most folks have had a chance to check out our new LLM driven FTSC Paper Database Search Tool. The tool has recently undergone some UI improvements, so please check it out. We are also still seeking feedback on the tool. We need SMEs to ask questions they already know the answers to, so we can adjust the various "levers" of the LLM to ensure the best results are provided to the flight test community. Please forward any feedback you have on the results, along with the queries to either me or Susan. You probably also saw that we are asking for name submittals for our LLM tool. I am sure there are plenty of great ideas out there. Please take the time to submit them to the FTSC!

Finally, now that our first phase is complete, the AI Subcommittee has started working on a potential replacement for the Flight Test Safety Database using a similar system. It will most likely start as a separate tool with just a simple search capability, but we plan to incrementally add more capability and take advantage of it being part of an LLM. Hopefully we will have something to share on that in next few months.

Thanks again for taking the time to read this newsletter. Please forward it amongst your organizations and fellow flight testers. Remember, keep identifying and managing those risks!

Stuart "Chia" Rogerson