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Thank you for participating,

A handwritten signature in black ink that reads "G Hamilton".

Gregory Hamilton
President
Aviation Week Network

Acknowledged, agreed, and submitted by

DocuSigned by:
A handwritten signature in black ink that reads "Simone Gobo Barcellos".
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Nominee’s Signature

July 15th, 2024
Date

Nominee’s Name (please print): Simone Gobo Barcellos

Title (please print): Director, Phenom Program Office

Company (please print): EMBRAER S.A.

NOMINATION FORM

Name of Program: Phenom 100EX

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Customer Approved

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Supplier Approved (if named in this nomination form)

○ Date: _____

○ Supplier Contact (name/title/organization/phone): _____

**PLEASE REFER TO PROGRAM EXCELLENCE DIRECTIONS
AS YOU COMPLETE THIS FORM.**

SECTION 1: EXECUTIVE SUMMARY

Make the Case for Excellence

Value: 10 points

What is the vision for this program/project? What unique characteristics and properties qualify this program for consideration?



Phenom 100 Longevity: A Blueprint for the Future

The Phenom 100 pioneered the Very Light Jet segment upon its 2005 launch and faced significant market disruption from the 2008 economic crisis and the rise of innovative competitors. These challenges motivated Embraer to develop the Phenom 100 Longevity Vision – a systematic process designed to anticipate market shifts and foster continuous product and program improvements. This strategic vision transcends single outcomes, focusing on revitalizing the aircraft to deliver sustained benefits and ensure Phenom 100 continues to redefine excellence for the years to come. The certification and the launch of the Phenom 100EX in 2023 exemplify this vision and will be the focus of this article.

Phenom 100EX - Experience Excellence: Value-Driven Design

Phenom 100EX embodies a design-to-value project, reflecting a commitment to delivering excellence to all stakeholders. The focus on "Experience Excellence" and product core values extends beyond customer satisfaction, encompassing enhanced pilot features in the new avionics, passenger comfort with a new cabin, and operational streamlining. Meticulous development methodologies such as "Design to Cost" ensure optimized recurrent costs from the earliest development stages. At the same time, sustainability is prioritized through reduced use of natural materials in the new interior. Phenom 100EX is a testament to Embraer's commitment to providing cutting-edge solutions that create value at every stage of design, ownership, and operation.

Taking Flight: The Maestro Conducts Phenom 100EX.

The launch and the development of the Phenom 100EX were guided by clear Narratives, solid commitment, and structured Task management (NCT); the program exemplifies precise orchestration yet incorporates a Holacracy-proxy management framework, adding a layer of decentralized decision-making, allowing flexibility and responsiveness in day-to-day operations. Benefits Realization Management focuses on tangible customer and organization results. Employing hybrid agile and classic management methodologies, with critical gate checks and refinement processes, Embraer demonstrates its expertise in navigating dynamic market forces. The Phenom 100EX is prepared for a thrilling flight, a testament to this strategic orchestration and the promise of "Experience Excellence" reimagined.

This article will present the whole history of the Phenom 100EX program, from the ideation, development, certification and market launch, in the category OEM/Prime Contractor System Design and Development.



Phenom 100EX aerial video shooting
Same crew and equipment used in the
Top Gun: Maverick movie

[Watch the video! Click here](#)

SECTION 2: VALUE CREATION

Value: 15 points

Please respond to the following prompt:

- **Clearly define the value of this program/project for the corporation; quantify appropriately**

Strategic Entry Point & Brand Loyalty: The Phenom 100EX is more than just an entry-level aircraft; it's a gateway to the Embraer experience. By attracting new customers with its blend of performance, comfort, and value, the Phenom 100EX cultivates brand loyalty that often translates into future "trade-up" purchases within Embraer's extensive portfolio of business jets. The Phenom 100 customers represent nearly **25%** of the Market Trade Ups within the upper Embraer segment. This strategic approach expands Embraer's customer base and generates substantial long-term value for the company.

Leveraging Best Practices and Reuse: Phenom 100EX exemplifies Embraer's solid commitment to continuous improvement. By strategically leveraging best practices, proven technologies, and design philosophies from the successful Praetor and Phenom 300E programs, Embraer elevates the Phenom 100EX's capabilities and optimize the investments, reduce technical risks and time-to-market. This inter-program synergy allowed Embraer to incorporate solutions already validated in more complex products, ensuring the highest levels of quality, reliability, and efficiency for the Phenom 100EX while maximizing value for customers.

Investing in Future Technologies: The firm commitment to technological advancement is crucial for the corporation's long-term success, as it fuels the development of cutting-edge products, to position Embraer at the forefront of the industry. This culture of innovation not only delivers cutting-edge solutions for the Phenom 100 but also provides significant returns on Embraer's research and development investments.

The technological advancements and lessons learned from the Phenom 100EX program can be strategically applied across Embraer's product line, ensuring that other aircraft and programs benefits from the developed IP, knowledge and expertise in the company's engineering teams. This approach fosters a continuous cycle of innovation, allowing Embraer to maintain its strategic position in the global aviation market.

- **Clearly define the value of this program/project to your customer**

Improved Cabin Experience & Functionality: The Phenom 100EX elevates the in-flight experience for both pilots and passengers. The meticulously redesigned interior features an increased flight deck with extended legroom for pilot comfort. Platform and interior modifications have also yielded a significant weight reduction of 190 lbs., translating to greater payload flexibility for operators. Stepping into the cabin, passengers are greeted by an innovative open-cabin concept that fosters a sense of spaciousness and connection with the cockpit. To further enhance the passenger experience, all cabin seats have been redesigned for superior comfort and style, featuring finishing options previously only available on larger jets.





Enhanced Safety: The Phenom 100EX sets a new standard for safety in its category by being the first to integrate the advanced Runway Overrun Awareness and Alerting System (ROAAS) into its Garmin G3000 avionics suite. ROAAS, powered by AI, continuously monitors various factors such as aircraft speed, runway conditions, and pilot inputs, ROAAS can predict the aircraft's stopping point and alert pilots well in advance if there is a potential risk of overrunning the runway. This proactive safety feature significantly enhances situational awareness and

enables pilots to make timely decisions to avoid runway excursions, contributing to a safer and more secure flight experience for passengers and crew.

Predictive windshear warns pilots about windshear conditions in advance to help them prepare and maneuver the airplane in order to best minimize adverse conditions. Combined with streamlined systems these cutting-edge features demonstrate Embraer's unwavering commitment to safety and fostering a safer, more efficient aircraft

➤ **Clearly define the value of this program/project to members of your team; quantify if possible**

Increased Satisfaction & morale: The Phenom 100EX program offers a unique and inspiring work experience that goes beyond the typical workplace. Team members have the opportunity to collaborate with talented colleagues, contribute with their expertise to a cutting-edge project, and ultimately play a role in creating a product that makes a real difference in the world. This sense of purpose and achievement, further amplified by the Phenom 100EX being shortlisted for the Yacht and Aviation Awards 2024, significantly boosts employee morale, job satisfaction, and engagement, fostering a positive and motivated work environment where innovation thrives.



Fostering Future Leadership: The program's dynamic and adaptable approach optimized project outcomes and created a fertile ground for leadership development. By empowering team members to take ownership and make decisions, the program fostered a new generation of leaders who are prepared to drive the company's future success. This focus on leadership development benefits individual team members and strengthens Embraer's overall organizational capacity, ensuring a sustainable pipeline of talent ready to tackle future challenges.



High Marks in Great Place to Work Certification: Embraer's outstanding 81% favorability rating in the Great Place to Work (GPTW) certification is a testament to its thriving workplace culture. This prestigious recognition, based on anonymous employee surveys and in-depth cultural analysis, confirms Embraer's dedication to fostering a positive and supportive environment where employees feel valued and empowered.

This high favorability score reflects a multitude of positive factors, including strong leadership, meaningful work, positive relationships, growth opportunities, and work-life balance. It showcases Embraer's unwavering commitment to creating a workplace where employees thrive and contribute to the company's continued success in the aerospace industry.

- Clearly define the contribution of this program/project to the greater good (society, security, etc.)

Environmental Leadership: A pioneer in sustainable aviation, leading its category in environmental responsibility with the lowest CO2 emissions. Embraer's commitment to a greener future is evident in the aircraft's interior design, which minimizes the use of wood and other natural resources. The introduction of Physical Vapor Deposition (PVD) coatings further reduces environmental impact through a cleaner, low-waste process. By prioritizing eco-conscious practices throughout its development, Phenom 100EX not only reduces its own footprint but also sets a powerful example for the aviation industry, paving the way for a more sustainable future of flight.



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Powered by the S&P Global CSA

A Champion of Sustainability: Phenom 100EX boasts the lowest CO2 emissions in its class, a remarkable 10% lower than its closest competitor. This achievement solidifies the aircraft's position as the greenest dual-engine jet in the entry-level category, aligning perfectly with the aviation industry's growing emphasis on reducing greenhouse gas emissions and promoting a more sustainable future for air travel. Furthermore, the Phenom series program is actively exploring and investing in sustainable aviation fuel (SAF) solutions, having already conducted successful test flights using SAF and SAF blends. This commitment to reducing carbon emissions and embracing alternative fuels further solidifies Embraer's position in sustainable aviation.

Economic Development & Connectivity: Phenom 100EX catalyzes economic development in underserved regions by unlocking access to smaller airports and remote communities. Its ability to operate from shorter runways and less developed facilities enables businesses to reach new markets, stimulate local economies, and create job opportunities. This enhanced connectivity fosters growth in areas previously limited by transportation infrastructure and bridges the gap between communities, promoting a more inclusive and equitable economic landscape.

SECTION 3: ORGANIZATIONAL BEST PRACTICES AND TEAM LEADERSHIP

Value: 35 points

Please respond to the following prompts:

- **15 points:** Describe the innovative tools and systems used by your team, how they contributed to performance and why

Using the PMX System: The program fully took advantage of Embraer's in-house Project and Portfolio Management system, PMX. Tailored to manage project requirements, scope, risks and opportunities, PMX served as a unified platform that streamlined the program management. By centralizing information and improving communication lines across diverse, multi-functional teams and assessing project health, PMX elevated the efficiency and synergy of the projects' execution.

Harnessing JIRA for Agile Project Excellence: The Phenom Program leveraged the power of JIRA, a leading project management tool, to achieve real-time project oversight and enhance overall efficiency. The program gained unprecedented visibility into project status, resource allocation, and progress tracking by online-integrating JIRA with the Critical Chain Project Management (CCPM) schedule database and establishing a standard activity board across all teams. This integration enabled data-driven decision-making and ensured that resources were prioritized based on real-time updates.

Furthermore, the Phenom Program embraced a hybrid approach by combining the principles of Agile project management, specifically Scrum Sprints, with CCPM. This innovative blend, facilitated by JIRA, allowed the team to maintain agility and responsiveness while adhering to the critical path. The result was a highly efficient and adaptive project management system that maximized productivity and ensured successful project delivery. Predictive metrics such as burn-up and burn-down charts, velocity tracking, and cumulative flow diagrams were employed to monitor progress, identify bottlenecks, and forecast delivery timelines. This data-driven approach enabled the team to make informed decisions and adjustments in real-time, ensuring a highly efficient and adaptive project management system that maximized productivity.

9ZERO-D Rapid Ideation Sprint: This new initiative incorporated Scope Workshops and data-driven analysis as part of the program initiation process, empowering small, cross-functional design teams to rapidly develop and refine product concepts and requirements within a 90-day timeframe. By fostering focused collaboration, encouraging out-of-the-box thinking, and empowering team members with autonomy, this accelerated approach generated innovative solutions and encouraged a strong sense of ownership and accountability among team members, ultimately contributing to a more efficient and effective product development process and program management.

Go-to-Market Collaborative Hub: The Go-to-Market Collaborative Hub served as a dynamic nerve center, orchestrating the successful launch of the Phenom 100EX. Led by the Product Strategy team, this integrated forum brought together key stakeholders from marketing, product strategy, programs, and contracts to oversee all aspects of the launch, including naming, branding, messaging, and promotional activities.



By fostering open communication and collaboration, the hub transcended traditional silos, enabling a unified approach to decision-making. This collaborative spirit ensured that all stakeholders were aligned on key objectives, from defining the target audience and crafting compelling messaging to developing impactful marketing campaigns. The Phenom 100EX relaunch campaign reached a wide audience and generated significant market enthusiasm, to solidify the Phenom 100EX's position as a compelling choice in the entry jet market.

➤ **10 points:** Define the **unique** practices and process you used to develop, lead and manage people?

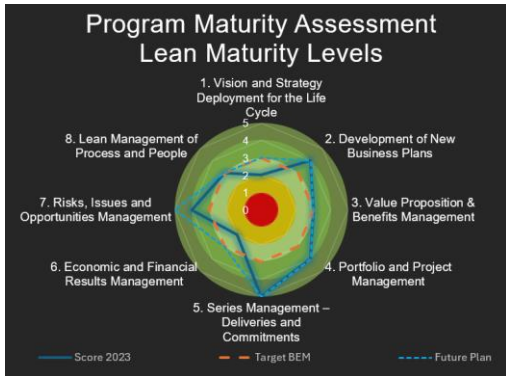


Embrace, Embraer's Campaign for Diversity, Equity, and Inclusion: An employee resource group (ERG) was created to actively promote diversity, equity, and inclusion within the company. Aligned with global diversity initiatives, Embrace drives meaningful actions, discussions, and initiatives throughout the year, catering to the diverse needs of women, people with disabilities, people from diverse backgrounds, members of the LGBTQIA+ community, African Americans, and War veterans.

Embraer recognizes each individual unique value and contributions, striving to create an inclusive workplace where everyone feels valued, respected, and empowered. To foster inclusivity, the company conducted a comprehensive demographic survey and assessed the accessibility of its key facilities. Through Embrace and its initiatives, Embraer demonstrates its commitment to building a workplace where everyone feels valued, respected, and empowered, celebrating the diversity of its workforce both in Brazil and the United States.

Social Tech program: A pioneering initiative designed to enhance the professional skills of underrepresented groups in the tech industry. The program has welcomed participants with disabilities and individuals of mixed backgrounds, providing them with tools and knowledge to thrive.

In 2023, the program offered a four-month immersive training course focused on data analysis, equipping participants with expertise in Python, AI, automation, DevOps, cloud computing, and business intelligence. This comprehensive curriculum, combined with a blended learning approach, ensured a holistic educational experience. Graduates of the Social Tech program is now part of Embraer's talent pool, with many being considered for future recruitment opportunities within the company and its partner network.



Developing People for Program Success: Embraer's Program Maturity assessment, based on Lean principles, identifies areas for improvement across eight key program aspects using a 0-5 maturity scale. This empowers leaders to develop customized training plans that address skill gaps (both technical and soft skills) and enhance the overall performance of programs and their people.

The assessment focuses on developing employees through structured learning opportunities based on a comprehensive view of existing team competencies. This ensures a skilled and adaptable workforce by promoting continuous development through processes like "Develop People" (focusing on employee growth), "Confirm Processes" (ensuring adherence to standards), and "Solve Problems" (equipping employees to tackle challenges). Competency visibility is achieved through the Readiness Matrix, while learning and training opportunities are facilitated by Learning Trails and Training Academies. This emphasis on people development ensures a skilled and adaptable workforce for program success.

➤ **10 points:** How did you leverage skills and technologies of your suppliers?

Fit for Growth (F4G), A Vehicle for Collaborative Innovation and Mutual Success: Initiated in 2019, Embraer's Fit for Growth (F4G) program has proven to be a transformative long-term strategic initiative that has yielded significant benefits for both Embraer and its key suppliers. Through joint collaboration, aligned expectations, and a focus on leveraging technology, knowledge, and capacity building, F4G facilitated the identification of new opportunities for partnership in the Phenom 100EX development.

The collaborative framework established by the F4G program fostered an environment of mutual trust and innovation that proved instrumental in the successful development of Phenom 100EX. This deep level of integration was further reinforced by on-site support during critical phases of the project, enabling rapid decision-making and accelerating progress. The result was a cascade of positive outcomes, including significant project gains in terms of efficiency and quality and wealth of shared knowledge and lessons learned that will benefit both Embraer and its partners in future endeavors.

Early Engagement & Collaboration: The collaboration was evident in its early and continuous engagement with key suppliers, fostering a tightly integrated team from the initial feasibility study onward. This proactive approach facilitated collaborative design sessions, encouraged real-time problem-solving, and promoted the seamless sharing of technical expertise. Joint risk assessments and regular design reviews ensured transparency, aligned expectations, and proactively mitigated potential issues, contributing to a smoother and more efficient development process.



SECTION 4: DEALING WITH PROGRAM COMPLEXITY (VOLATILITY, UNCERTAINTY, COMPLEXITY, AMBIGUITY, or VUCA)

Value: 25 points

Please respond to the following prompts:

- **10 points:** Describe UNIQUE areas of VUCA faced by your program and why. (Please avoid the issues surrounding Covid-19 pandemic, which was faced by all programs.)
- **15 points:** Explain how your team responded to these challenges. What changes did you make, what were the results?

Complexity: Kennedy Space Center, a Launch Pad for Phenom 100EX



F-104 Starfighter and Phenom 100EX at NASA Kennedy Space Center in the Launch Event

The Kennedy Space Center (KSC) was chosen to provide an unparalleled experience for the Phenom 100EX launch event, yet its unique environment posed intricate logistical and operational challenges. The team faced complex issues related to security clearances, specialized infrastructure, and adherence to stringent protocols, once the prospects and the customers could fly their own aircraft to the event, with the unique opportunity to land on the space shuttle landing runway, added a further layer of logistical complexity. [The event was further enhanced by the presence of Andy Allen, a former Top Gun pilot and NASA astronaut, owner of a Phenom 100E.](#)

Response to the challenge: To address the complexities of hosting an event at KSC, the Phenom 100EX program adopted a systemic approach, breaking down the multifaceted challenges into manageable components. This involved:

- **Early and Continuous Collaboration:** Engaging with KSC personnel early in the planning process to establish clear communication channels and understand their specific requirements.
- **Detailed Planning and Risk Mitigation:** Creating a comprehensive event plan that accounted for all potential logistical, security, and regulatory challenges. This included developing contingency plans to address unforeseen circumstances.
- **Resource Allocation:** Allocating sufficient resources, including personnel, time, and budget, to address the unique demands of the venue. This involved securing additional security personnel, transportation, and specialized equipment.
- **Clear Communication and Coordination:** Maintaining open and transparent communication with all stakeholders, including KSC officials, Embraer leadership, and event vendors. This ensured that everyone was aligned on expectations and responsibilities.

The result was a resounding success, with the Phenom 100EX launch event exceeding expectations. The team's ability to navigate the complexities of KSC showcased Embraer's commitment to innovation and customer-centricity. By choosing this unconventional venue, Embraer not only delivered a truly unique experience for its customers, but also sent a powerful message about the Phenom 100EX's capabilities to a targeted audience. The seamless execution of the event, despite the logistical hurdles presented by KSC, instilled confidence in potential buyers and solidified the Phenom 100EX's position in the entry jet segment.

Uncertainty & Ambiguity: Navigating in stealth mode and unveiling the Phenom 100EX.

The Phenom 100EX program's decision to maintain confidential until launch aimed to maximize competitive advantage but introduced unique challenges from uncertainty and ambiguity. This deliberate secrecy aimed to maintain a competitive advantage but also created uncertainty in sales campaigns and posed challenges in communicating effectively with suppliers essential to the aircraft's development. The nature and purpose of the whole project being intentionally hidden led to ambiguity among stakeholders, team members, and potential customers, making it challenging to align expectations and manage project risks.



*P100EX Unveiling Ceremony in the KSC
Space Shuttle Atlantis room*

Response to the challenge: To mitigate the uncertainty and ambiguity surrounding the project's confidentiality, the Phenom 100EX team adopted proactive strategies:

- **Scenario Planning and Risk Assessment:** The team conducted detailed scenario planning to anticipate potential risks and develop contingency plans for various outcomes. This included assessing the impact of delayed supplier engagement, potential leaks of information, and managing customer expectations.
- **Clear Internal Communication and Decision-Making:** Within the project team, transparent communication and well-defined decision-making processes were crucial. Regular updates, clear roles and responsibilities, and dedicated discussions helped to mitigate ambiguity and ensure everyone was working towards the same goals.
- **Enhanced Communication with Key Stakeholders:** While maintaining confidentiality, the team established clear communication channels with key suppliers and stakeholders. This involved sharing essential information on a need-to-know basis, fostering trust, and aligning expectations to minimize disruptions caused by the confidentiality.
- **Phased Information Release:** As the project progressed, the team strategically released information to relevant parties in a controlled manner. This helped to gradually reduce ambiguity and build anticipation for the official launch.

By proactively managing risks, fostering clear communication, and building trust, the Phenom 100EX team successfully navigated the challenges of confidentiality, ultimately contributing to a successful launch without any leak.

Volatility: Use of pre-series aircraft inside a production environment

The Phenom 100EX program the integration used a pre-series aircraft into the existing production environment. Typically, pre-series aircraft are utilized exclusively for testing and certification purposes, separate from the main production line. However, to expedite the development process, the Phenom 100EX team made the bold decision to incorporate these early-stage aircraft directly into serial production.

This approach, while innovative, introduced significant volatility. The production line, accustomed to a standardized process and specific resource allocation, was suddenly tasked with accommodating the unique demands of pre-series aircraft. This required a delicate balancing act, as resources were now being pulled in multiple directions, with both pre-series and serial production competing for resources. The team had to rapidly adapt existing procedures, reallocate resources, and develop new processes to ensure a smooth and efficient workflow.

Response to the challenge: The natural challenges of integrating pre-series aircraft into the production line, the Phenom 100EX program implemented a multi-pronged strategy to effectively manage the resulting volatility. A key element of this strategy was the formation of a cross-functional task force

- Formed a Cross-Functional Task Force: Experts from program management, engineering, production, and quality assurance collaborated to identify and address bottlenecks.
- Prioritized Agile Resource Management: Resources were dynamically allocated based on real-time needs, ensuring both pre-series and serial production demands were met.
- Fostered Continuous Improvement: The team regularly evaluated and refined processes to adapt to new challenges and optimize efficiency.

This collaborative and adaptable approach enabled the Phenom 100EX team to successfully navigate the complexities of integrating pre-series aircraft, minimizing disruptions to the production line and ensuring the timely delivery of a high-quality product.

SECTION 5: METRICS

Value: 15 points

Please respond to the following prompts, where predictive metrics indicate items that provide a view of how yesterday's actions and today's actions will affect the future timeline, cost or other requirement.

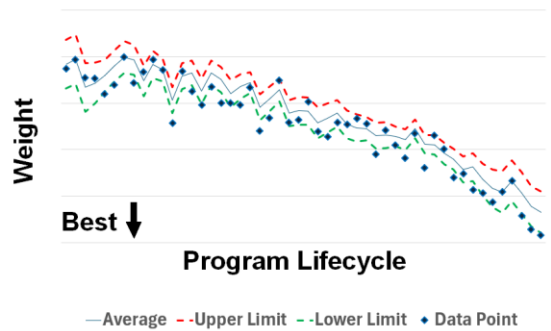
Provide charts/graphs that illustrate performance to these metrics:

- **What are your predictive metrics?**
- **How did you perform against these metrics?**
- **How do your predictive metrics drive action toward program excellence? Please provide examples.**

Dynamic Weight Management: A Data-Driven Approach to Optimization

A sophisticated weight management strategy, harnessing a dynamic metric that continuously tracked aircraft weight against key program milestones. This innovative approach leveraged both historical statistical data and real weight measurements, refining weight predictions with each successive phase of development. This iterative feedback loop ensured that the team could proactively identify and address any potential weight discrepancies early on, preventing costly and time-consuming rework later in the project.

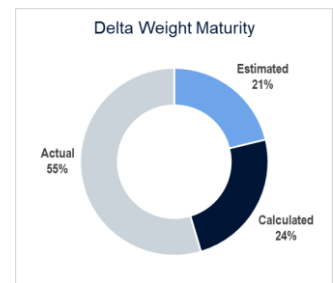
By integrating statistical modeling with empirical data, this approach bridged the gap between theoretical projections and practical realities, resulting in a robust and adaptable weight management tool. This data-driven approach enhanced the accuracy of weight estimates and empowered the team to make decisions regarding design optimizations, material selection, and system configurations. The result was a meticulously managed weight profile to deliver superior value to customers and pursuit of excellence in every aspect of aircraft development.



Scale and Number hidden for confidentiality

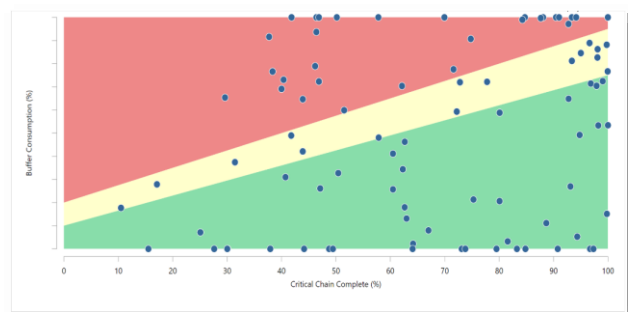
Performance: In the case of the Phenom 100EX program, it showcased a commitment to weight optimization. With a target weight reduction of 190 lbs., the team exceeded the target by achieving a final weight reduction of 194 lbs. This exceptional achievement not only speaks to the program's rigorous attention but also delivers tangible benefits to customers in the form of enhanced performance and greater payload flexibility.

Actions towards excellence: To maintain stringent control over aircraft weight, the Phenom 100EX program implemented a rigorous weekly weight tracking process. A comprehensive Weight Journal provided real-time visibility into the aircraft's weight status, enabling the team to swiftly identify any deviations from the target weight. In the event of a negative trend, the design team promptly initiated a thorough re-evaluation of the relevant systems or components. This proactive approach, executed before reaching critical design approval milestones, ensured timely corrective action, mitigating the risk of costly weight overruns or project delays. The systematic implementation of this weight management strategy fostered a culture of continuous improvement and weight optimization, ultimately exceeding its ambitious weight reduction targets while maintaining the standards of engineering excellence.



Optimizing Program Delivery: Embraer's Data-Driven Approach to Project Management

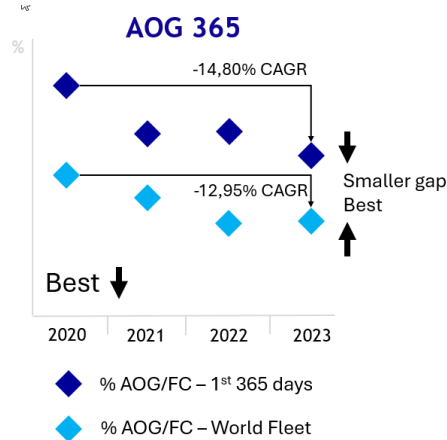
Using a "fever chart" to monitor project buffer consumption. A buffer protects the project's committed finish date. As the project progresses, the projected finish date is monitored within this buffer with a fever chart, as presented in the picture. This method enables proactive, real-time tracking and management of buffer usage. It enables the project team to identify potential schedule slippages or resource constraints and take preventive or corrective actions as needed. It significantly improves the project's on-time delivery success ratio.



Performance: By integrating the fever chart with Jira, the program team achieved real-time digital updates on task progress and buffer consumption. This eliminated the need for manual updates and significantly improved the accuracy of data, enabling more precise predictions for decision-making. The real-time tracking facilitated early identification of potential problems, allowing for timely intervention and minimizing the impact on the overall project timeline.

Actions towards excellence: The digital integration of Jira with the fever chart streamlined project management processes and enhanced the reliability of buffer consumption data. This provided the team with a more accurate understanding of the project's status, enabling them to make informed decisions based on real-time information. The improved forecasting capabilities allowed for proactive resource allocation and risk mitigation, ultimately contributing to the successful completion of the Phenom 100EX program.

Reliability Redefined: First 365 days Reliability Performance



The AOG 365/FC metric focuses on the first 365 days of an aircraft's operational life, providing key insight into how new technologies and components perform in the real-world operational environment. This metric often exhibits a different behavior compared to the World Fleet AOG/FC (% Aircraft on Ground/Flight Cycle) as Early Failure Phenomenon tends to compromise new components (bathtub curve) and to the fact that are new different solutions and technologies being introduced to new aircraft models coming out from production. This metric aims to implement measures to prevent early failure, that ultimately affects customers satisfaction in the first year of aircraft operation.

Performance: The performance from 2020 to 2023 reveals a trajectory of continuous improvement in reliability. When compared to the World Fleet AOG/FC benchmark, the Phenom 100 series demonstrates a good track record. While the AOG/FC 365 metric, assessing the new aircraft, is naturally slightly higher, the positive trend is the convergence of both metrics and their downward trajectory. This signifies the increasing reliability of new aircraft. The declining trend in the World Fleet AOG/FC also indicates older aircraft are becoming even more reliable, raising the bar to a more challenging benchmark for new aircraft.

Actions towards excellence: The progress illustrated in these results can be attributed to the dedication of a specialized task force, the Tiger Team. The Tiger Team plays a critical role in identifying the root causes and implementing necessary actions to improve the metric. This Team plays a critical role, being responsible for identifying the root cause and accelerate the issue resolution, to heighten the overall performance and reliability of the aircraft. All sort of actions is usually taken, from refining production instructions, redesign components, to actively engaging with suppliers to improve quality and employing Lean tools such as Kaizen and Poka-Yokes.

Furthermore, the Phenom 100EX can be equipped with AHEAD health analysis and diagnosis system called Health Monitoring, which provides trend analysis and detects parts degradation to avoid AOGs and unscheduled maintenance. All the data collected from the AHEAD suport the team with necessary information to build intelligence of the AOG causes and consequences. In 2022 Embraer Executive Jets ranked overall #1 in the AIN Product Support Survey, scoring 8.0 out of 10, a score sustained trough 2023.

