

### **E1000 FLIGHT DECK – PERFECTION BY DESIGN**



Modern design seeks to solve problems and improve usability, blending art with science, evolving function into form. But all too often, design is an afterthought, limiting its impact when not integrated early or prioritized equally with engineering and manufacturing.

#### **DESIGN IMPERATIVE**

Three years ago, Epic Aircraft committed to integrating industrial design as a core component of its E1000 certification program. Now established as a strategic platform throughout product development, Epic is focused not only on creating a superior aircraft, but on perfecting the entire experience of flight.

#### ADVOCATE FOR THE CUSTOMER

Epic designers are 'advocates' for the customer experience, focused on enhancing everything the pilot and passengers see, hear, touch, and feel. They strive to think beyond the limitations of physics, finances, and production, to solve problems, improve functionality, and identify new opportunities for impacting change. And then they evolve those inspirations and ideas, in collaboration with engineering, manufacturing, and finance, into a practical form that can be delivered to customers.

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"Design is a strategic differentiator for us. Epic is already recognized as an industry innovator with a category-defining all carbon fiber aircraft. We intend to take that reputation further by elevating the entire flight experience for both pilots and passengers."

– Doug King, CEO, Epic Aircraft



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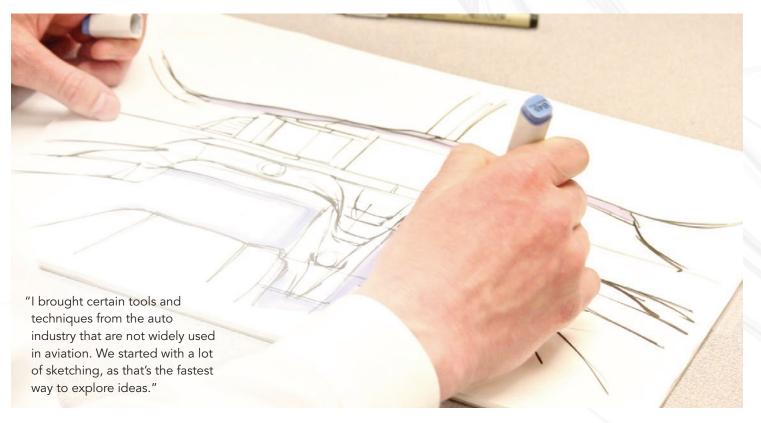


**Jamie Klopp** is an Industrial Designer, who spent eight years in the auto industry before being recruited by Epic. An avid instrument-rated pilot, he successfully blends his auto industry experience with his passion for aviation toward the design of a flight deck that surpasses anything on the market today.

# EPIC INDUSTRIAL DESIGN PROCESS

#### INTEGRATE. INNOVATE. PRIORITIZE. COLLABORATE. EXECUTE.

"What Epic did well was to integrate design early and prioritize it alongside engineering, manufacturing, and accounting. The E1000 has performance and payload that are already shaking up the industry. And we are adding to that an interior, ergonomics, safety, styling, comfort, attention to detail that will raise the bar across all aircraft."

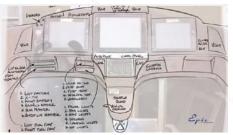




"At the same time, we were moving components around in CAD, using a digital human mannequin to learn what was possible, to establish a pilot's eye point, hip point, reach zones, and sightlines."



"After we had a general idea of where the components wanted to live, we transferred the development into a fullsize clay model. Clay is very creative. It is like sketching in 3-D. it can be quickly added or removed and shows you very accurately where you will have problems later if you don't address them now."

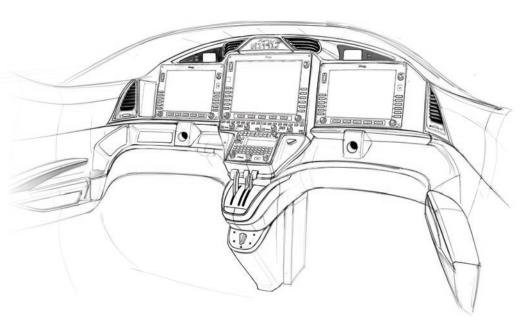


"Then there is the final challenge to find balance throughout the organization, without compromising results. The designers can dream it, sketch it and model it – but engineering needs to make it work and manufacturing must build it at a reasonable cost."

### PERFECTING THE EXPERIENCE OF FLIGHT

#### INTUITIVE. ENGAGING. SAFE. FUN.

The design team's first priority was a complete overhaul of the flight deck. Their goal was to make flying the E1000 as intuitive, engaging, safe and fun as possible. "In a flight deck environment, the density of design is very high. We met this challenge by fundamentally rethinking how crew areas are packaged and presented to pilots," explained Klopp. "We started with a clean slate, did lots of research and then got creative."



"The best designers are those who have strong engineering minds, who understand the limits of physics, finances and production, but who can 'turn off' those practicalities, at least for a while, in order to conceive that creative spark, that better idea of what potentially could be, for that is when the true breakthroughs come."

– Jamie Klopp, Industrial Designer, Epic Aircraft

#### ENHANCED YOKE DESIGN

As the principal interface between plane and pilot, the yoke's shape, contours and position on the panel were designed to optimize sight lines, provide additional knee clearance, and conform perfectly to hand. The result is a sculpted balance of function, form and style.



**CONSOLIDATED PILOT WORKFLOW** To enhance pilot work flow, the team focused on optimizing movement, reach and visibility. The E1000 flight deck is intuitive, effortless, with key flight management systems strategically positioned and sequenced logically to reduce arm movement, minimize fatigue, and avoid shadowing displays.



#### **IMPROVED DATA ASSIMILATION**

To improve data access, crucial flight safety functions were grouped together into a recessed 'wedge' located just below the windscreen. This 'sightoptimized annunciator panel' enables the crew to quickly assimilate data during critical phases of flight when pilot attention is focused outside the aircraft.

Epic has succeeded in making a highly complex and capable aircraft feel intuitive and easy for its pilots, engaging them at every touch point, striving for perfection in every detail. Not only have they addressed the needs of their customers, but have gone beyond to establish new expectations of design.

The team identified three high impact opportunities for improving flight operations: the ergonomics of the yoke, workflow design around the command center, and the pilot's ability to assimilate data during critical phases of flight.

### THE E1000 IS A MASTERPIECE OF INNOVATION.

Visually stunning and thrilling to fly. Testimony to the dedication of those who designed her – and to the passion of those who will own her.

## NEVER COMPROMISE.

MAXIMUM CRUISE 325+ KTAS TIME TO CLIMB SL TO 34,000 15 Minutes RANGE MAX CRUISE 1385 NM RANGE ECO CRUISE 1650 NM PAYLOAD (FULL FUEL) 1120+ lbs



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