Holy Micro! LLC Showcases Advanced Aviation Safety Solutions at SUN 'n FUN 2025 – Booth B-027, B-028



Syracuse, New York Mar 15, 2025 (<u>Issuewire.com</u>) - <u>Holy Micro! LLC (holymicro.com</u>) is proud to introduce **Absolute AoA**, a revolutionary Angle of Attack (AoA) system, at **SUN 'n FUN Aerospace Expo 2025**. In addition to this latest innovation, we are showcasing our proven aviation safety products: **SkyVoice Alert 500, SkyVoice Glassy Guide 400**, and **SkyVoice Glassy Guide 400 Portable**.

The FAA has consistently emphasized the critical role of Angle of Attack (AoA) alerting systems in improving aviation safety. In its *Special Airworthiness Information Bulletin* (SAIB: 2024-07), the FAA highlights that AoA indicators significantly enhance situational awareness, helping pilots avoid stalls and loss-of-control incidents. These systems are particularly vital during takeoff, landing, and low-speed maneuvers, when the risk of aerodynamic stall is greatest.

Traditional AoA indicators offer safety benefits but come with challenges - they require precise calibration, optimal sensor placement, and extensive pilot training. Aircraft already have stall warning systems, so why add another AoA device? Most AoA systems primarily serve as stall warning tools, with limited functionality beyond that, and the lack of standardization in display formats can impact usability. The Absolute AoA by Holy Micro! LLC is different. It provides real-time, accurate Angle of Attack data for all phases of flight - takeoff, climb, cruise, and landing - enhancing safety, efficiency, and pilot confidence far beyond just stall prevention.

This innovative and fully independent system is designed to provide pilots with precise and reliable angle of attack data across all phases of flight. Utilizing multiple sensors, the system calculates and calibrates a normalized pressure ratio - an accurate method validated through extensive studies and flight tests. Whether flying at high or low altitudes, varying speeds, or with different loading configurations, Absolute AoA delivers reliable information pilots can trust. This product is patent pending, and FAA NORSEE approval is in progress.

Angle of Attack is a critical parameter for maintaining safe flight operations, yet many traditional systems fail to provide accurate and consistent readings beyond basic stall warnings. The Absolute AoA System overcomes these limitations by employing its advanced normalized pressure ratio method and multisensor design. This technology ensures dependable AoA indications unaffected by density altitude, loading conditions, or flap settings. As a result, pilots receive accurate data not just near stall speed but also across key V-speeds, including Vx, Vy, Va, and Best Glide.

Adding to its innovation, Absolute AoA integrates cutting-edge LiDAR technology that automatically detects flap position and landing configuration without requiring any physical connection to the flap system. This feature enhances the system's accuracy during takeoff, approach, and landing, providing seamless adjustments as the aircraft's configuration changes.

Installation is streamlined and efficient. Pilots and installers can choose between a wireless option, completed in under one hour, or a wired option that typically takes 3-4 hours using existing inspection plates under the wing. The wireless option can take power from the aircraft's wing or navigation lights, reducing installation time.

The system offers reliable connectivity, giving operators the choice of WiFi (wireless) or wired communication between the sensor electronics and the processor, which is conveniently mounted behind the instrument panel. For display, Absolute AoA provides multiple customizable options, including 2.2-inch, 2.4-inch, 2.8-inch, and bar-style touch displays, offering real-time visual feedback to enhance situational awareness.

A dedicated 6.5-inch digital Human-Machine Interface (HMI) simplifies setup and AoA calibration, ensuring optimal accuracy without complicated procedures. The Absolute AoA probe itself is built for durability, crafted from high-quality 6061 aluminum,m and designed for installation under the wing's inspection plate.

Unlike conventional pressure differential systems that tend to lose accuracy outside of stall conditions, Absolute AoA delivers linear and precise angle of attack readings throughout the flight envelope. Pilots benefit from clear, actionable data that enhances safety and performance, especially during critical phases like takeoff, landing, and slow-speed maneuvers.

Meet us at SUN 'n FUN 2025!

Visit us at Booths B-027 and B-028 to explore our latest aviation safety solutions, including the revolutionary Absolute AoA and our proven SkyVoice product line. Our team will be on-site to answer questions, demonstrate our systems, and help pilots and operators discover how our innovations can enhance their flight operations.

We're also hosting an exclusive forum session on Angle of Attack Alerting Systems(https://flysnf.org/activities/forums/2025-forums-schedule/)

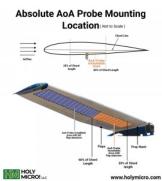
Join us for an in-depth discussion on the what, how, and why of AoA systems and learn how Absolute AoA is changing the game.

Topic: Angle of Attack Alerting System - What, How, Why?

Dates: April 1 - April 4, 2025 Time: 12:00 PM - 12:55 PM

For more information, visit www.holymicro.com.





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