



INTRODUCING CAE CORE: AN ENHANCED DATA-DRIVEN TRAINING METHOD, FILLING A GAP IN BUSINESS AVIATION

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As traditional regulation prescribes, pilots train regularly for emergency situations that, fortunately, most will never encounter outside of a simulator. However, there is a gap when it comes to emerging threats that are not typically covered during a standard task-based training session. This leaves pilots less well-equipped to deal with new risks. Approximately 95% of business jet operators manage fleets of five aircraft or fewer, with more than 80% operating a single aircraft. Due to the limited number of aircraft and pilots, these operators often lack the volume of data required to generate sufficient feedback for driving meaningful improvements in advanced pilot training. As a result, business aviation pilots, much like those in small airlines, typically continue to follow traditional training regulations.

However, the operational parameters are known to be much more diverse, calling for more practical, real-world training in addition to minimum requirements fulfilled by task-based instruction in business aviation. In line with its commitment to delivering industry-leading pilot training, CAE is

challenging the norm in business aviation by evolving data-driven training approaches. By aggregating and analyzing objective simulator data, CAE is identifying, defining, and ultimately delivering pilot training solutions that meet the current and emerging needs of business aviation.

The company has therefore created CAE's Continuously Optimized Recurrent training. CORE training modules are created from data gathered by CAE Rise (Real-time Insights and Standardized Evaluations, which gathers and aggregates anonymized pilot performance data from thousands of business aviation pilots during CAE training sessions), as well as other robust sources - data from OEMs, operators and other trusted sources—including EASA's DATA4SAFETY database - specifically tailored to meet the changing needs of business aviation pilots.

The data-based CORE training exercises aim to address risks and prepare pilots with responses to situations that fall outside the scope of traditional training compliance. Powered by CAE Rise, CAE can analyze millions of data points from simulator training looking for patterns and clues that can help predict, and even prevent, potential problems in the future. As a result, pilots in training aren't just reacting to the taskbased scenarios they see year after year in recurrent training. Instead, they're constantly being challenged with new, real-world scenarios that require a more nuanced skillset and set of judgements.

As emerging issues are identified, relevant findings are incorporated into new simulator scenarios. Since a simulator is a contained environment, it's a safe space to assess how well pilots respond to various issues; it exposes them to the risk while an instructor observes a pilot's behaviour and/or facilitates learning and the application of appropriate responses. This is where the role of instructors becomes more important than ever, as they guide pilots through the complexity of both emerging and unseen systemic risks with true-to-life scenarios aimed at honing the critical skills necessary to make life-saving decisions under pressure.

CORE training is aircraft, device and authority agnostic, addressing recurring risks in regular maneuvers and suboptimal pilot reactions to emerging threats, supporting overall industry improvement. CORE creates learning scenarios that enrich knowledge and equip pilots to better respond in situations where data has shown opportunities to improve safety, efficiency, or where specifications are desired and possible – all with the goal of ensuring all pilots that CAE trains are completely ready for the moments that matter.

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