

BRIDGING TRAINING GAPS IN BUSINESS AVIATION WITH CBTA

TIM SCHOENAUER, GLOBAL SENIOR DIRECTOR, TRAINING SOLUTIONS BUSINESS & HELICOPTER AVIATION TRAINING, CAE

Business aviation has never operated in a more dynamic or demanding environment. New-generation aircraft, increasingly complex airspace, evolving threats, and rapid technological change have elevated the expectations placed on pilots. Yet many pilots continue to train exclusively to the regulatory standards that have remained largely unchanged for decades. While regulated task-based training ensures compliance, we can do better to prepare crews for today's highly variable operational landscape.

This gap has real implications for insurers, brokers, underwriters, claims professionals, and aviation attorneys. When an unexpected event occurs — often in the margins between known procedures and the unpredictable — pilot resilience becomes a key determinant of outcome, liability, and ultimately, risk exposure. The industry needs training that develops adaptable, data-informed, real-world competencies. That is precisely where Competency-Based Training and Assessment (CBTA) comes in.



FROM TASK COMPLETION TO TRUE COMPETENCE

CBTA represents a structural evolution in aviation training and is increasingly supported by regulators such as the FAA, EASA, the UK CAA, and Transport Canada. Rather than teaching pilots to complete a series of prescribed tasks, CBTA uses realistic scenarios — often informed by issues other pilots have recently encountered — to expose crews to the types of challenges they are most likely to face.

CBTA focuses on developing and assessing nine pilot competencies and observable behaviours, such as decision-making, situational awareness, workload management, flight path management, and communication. These competencies are critical in preventing accidents, not just managing them.

THE INDUSTRY NEEDS TRAINING THAT DEVELOPS ADAPTABLE, DATA-INFORMED, REAL-WORLD COMPETENCIES.

Beginning in January 2026, CAE is implementing CBTA principles in business aviation recurrent training, starting with Phase A of the EASA recurrent curriculum. CBTA principles are also reaching our customers in the Americas through an introductory initiative called CORE, described as follows:

TRAINING POWERED BY REAL DATA

CAE's training methodology sits at the intersection of learning science, advanced technology, and evidence-driven insights. It integrates three pillars:

- *Learning sciences: experiential, scenario-based training proven to enhance retention and performance*
- *Competency-based frameworks: measurable behavioural outcomes that directly translate to real-world performance*
- *Evidence-based practices: curriculum continuously refined by data, not assumptions*

The engine enabling this transformation in business aviation is CAE CORE: Continuously Optimized Recurrent training.

identifying emerging risks or skill gaps is difficult, leaving pilots dependent on syllabi that may not reflect current operational realities.

CORE fills this gap by delivering the data needed to inform CBTA scenarios. It is a data-driven, aircraft- and regulatory-agnostic training method that enhances recurrent training with scenarios derived from real operational trends. CORE modules draw from multiple sources, including anonymized performance data from CAE Rise™ collected during CAE training sessions, along with robust inputs from OEMs, operators, and trusted databases such as EASA's DATA4SAFETY.



Photo credit: Kim Rosenlof

CORE: TURNING INSIGHTS INTO ACTION

Commercial airlines have long used operational data to shape their simulator training. By contrast, most business aviation operators lack the scale to generate meaningful datasets: more than 80% operate a single aircraft, and over 95% operate five or fewer. Without large datasets,

All insights are tailored to the evolving needs of business aviation pilots.

CORE exercises address risks and prepare pilots for situations that fall outside traditional compliance training. When emerging issues appear in the data, relevant findings are integrated into new simulator



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scenarios. These insights are translated into short, focused CORE modules that expose pilots to both recurring risks and new threats beyond regulatory requirements.

Examples include runway excursions, GPS jamming or spoofing, or sudden airport diversions caused by social or geopolitical unrest. These scenarios frequently contribute to incidents not because pilots lack technical skill, but because they were never trained to anticipate or manage these real-world dynamics.

A BETTER STANDARD FOR AN EVOLVING INDUSTRY

For the insurance community, CBTA and CORE represent meaningful advancements in risk mitigation. Better-prepared pilots lead to fewer incidents, more effective threat management, and improved outcomes when abnormal events occur.

CAE is committed to advancing training standards across business aviation by

leveraging science, technology, and global data networks to ensure pilots are fully ready, and not just compliant. As we expand CBTA delivery across our worldwide business aviation network, we are elevating the performance and preparedness of every pilot who trains with us.

In a sector defined by complexity and responsibility, bridging today's training gaps is essential. With CBTA and CORE, we are giving pilots and the organizations that insure them the confidence that they are truly ready for the moments that matter.

Tim Schoenauer leads CAE's Training Solutions Team, which is focused on modern, innovative training and regulatory and operational solutions in business aviation. He has held senior leadership and flying positions in the past 25 years in both commercial and business aviation, including captain, TRE, flight crew licensing inspector, head of training, director of operations, and accountable manager with global organizations. In addition to his responsibilities at CAE, Schoenauer is engaged in several industry committees and remains current flying the Gulfstream 650.