ACES 5® Advanced Concept Ejection Seats

Those Born to Fly
Live to Walk Away

The seat of choice for T-X Trainer Aircraft

ACES 5® is the latest addition to the Collins Aerospace family of Advanced Concept Ejection Seats. It incorporates significant safety and cost saving upgrades compared to the legacy ACES II®, which is credited with saving more than 650 lives since its 1978 introduction.

While retaining the proven performance of the ACES II, Collins Aerospace engineers incorporated technology improvements to create the next generation ACES 5 ejection seat. The seat is rigorously tested to validate performance, reliability, and compliance with the latest safety requirements.

Specifically designed to enhance crew safety during an ejection, ACES 5 provides head and neck protection as well as passive arm and leg restraint protection. Additionally, the design of ACES 5 simplifies routine maintenance and enables maintainers to quickly return the aircraft back into service.

Improved pilot safety. Improved ease of maintenance. Decreased life-cycle costs. All backed by program execution and teamwork resulting in ACES 5 selection for the Boeing/Saab T-X Trainer.

Key Features

- Passive head and neck protection qualified to <5% overall injury risk (MIL-HDBK-516C Change Notice)
- Passive leg and arm restraints
- Improved drogue system provides unsurpassed high-speed stability
- Common CAD/PAD with thousands of fielded ACES II® ejection seats worldwide
- Stability package (STAPAC) active pitch stabilization system
- Largest contiguous survival kit volume (~1,500 cubic inches)
- CKU-5C rocket catapult provides “softest ride” available; spinal injury rate of <1%
- GR7000 main recovery parachute provides lower descent and oscillation rates

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DISTINCTIVE SAFETY AND MAINTENANCE DETAILS

Distinctive solutions set ACES 5 apart from other ejection seat offerings. The ACES 5 unique stability features provide a faster deploying drogue parachute and a stability package (STAPAC) to compensate for pitch changes due to varied aircrew weight and aerodynamic effects, reducing the risk for injury. Additionally, the simple, mechanical head and neck protection system provides requirement compliant safety performance.

The seat structure eases performing maintenance by improving overall access to the internal service life components of the seat as another benefit. To facilitate finding foreign objects in the cockpit, the entire seat can be removed without having to remove the aircraft canopy, thereby increasing aircraft availability.

ENVELOPE

Electronic sequencing provides enhanced performance at all altitudes and airspeeds, balancing minimum recovery altitude and injury potential.

- Speed: Zero airspeed to 600 KEAS
- Altitude: Zero to 50,000 feet

ADDITIONAL FEATURES

- Corrosion-resistant structure
- Automatic height adjusting headrest
- Accommodates JPATS Cases 1-7
- Worldwide logistics and support for more than 29 air forces
- Proven mortar deployed parachute
- Modernized ACES seat sequencer
- Compatible with standard U.S. military aircrew interfaces
- Compatible with USAF Personnel Flight Equipment (PFE)
- Provides ACES II multi-mode superb performance
- Berry Amendment compliant
- Improved instructor forward visibility in tandem trainer aircraft