



ACES 5[®] advanced concept ejection seats

Next-generation ejection seats

Advanced, life-saving technology

The ACES 5[®] ejection seat 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 720 lives since 1978.

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

The modular design of ACES 5 simplifies routine maintenance, enabling maintainers to quickly return the aircraft to service.

Give your teams what they need for the Next Generation Ejection Seat (NGES) program. Give them the improved pilot safety, ease of maintenance and decreased life-cycle costs that make ACES5 the best choice on the market today.

Distinctive safety and maintenance details

Our distinctive solutions set ACES 5 apart from other ejection seat offerings. The 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 of injury. The simple mechanical head and neck protection system provides requirement-compliant safety performance.

Key features

- Passive head and neck protection qualified to 2016 update of MIL-HDBK-516C injury requirements
- Passive leg and arm restraints
- Improved drogue system provides improved high-speed stability
- Common cartridge-actuated devices/propellant-actuated devices (CAD/PAD) used on thousands of fielded ACES II[®] ejection seats worldwide
- STAPAC active pitch stabilization system
- Largest survival kit volume (1,500 cubic inches)
- CKU-5C rocket catapult provides “softest ride” available, with a spinal injury rate of <1%
- GR7000 main recovery parachute provides lower descent and oscillation rates
- Functionally modular design



Advanced concepts on the ACES 5®

The modular seat structure makes it easier to perform maintenance by improving access to the seat's internal service life components. The seat bucket can be easily removed to facilitate finding foreign objects in the cockpit, and the entire seat can be removed from the cockpit without canopy removal, increasing aircraft availability.

Performance envelope

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

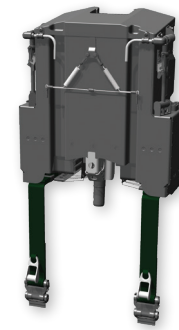
- Speed: Up to 600 KEAS
- Altitude: Up to 50,000 feet (60,000 feet for F-22 seat)

Additional features

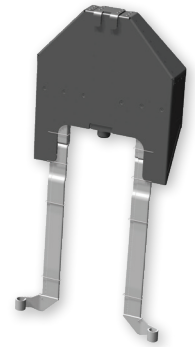
- Modular structure (15-minute seat removal and 25-minute reinstallation)
- Automatic height-adjusting headrest
- Accommodates Joint Primary Aircraft Training System (JPATS) cases 1-7 (103-245 lb. aircrew)
- Worldwide logistics and support for more than 29 air forces
- Redundant initiation and sequencing system for critical seat functions
- Proven mortar deployed parachute
- Modernized ACES seat sequencer
- Compatible with standard U.S. military aircrew interfaces
- Compatible with U.S. Air Force personnel flight equipment (PFE)
- Berry Amendment compliant
- Superior rear visibility
- Improved instructor-forward visibility in tandem trainer aircraft
- 100% manufactured using U.S. supply base



Seatback module with headrest



Recovery parachute



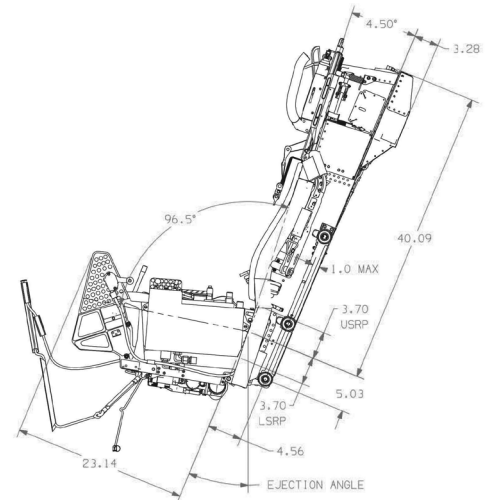
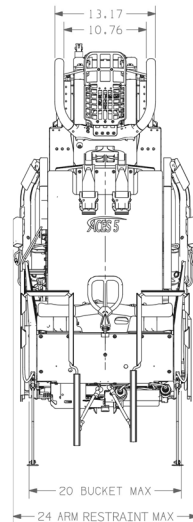
Drogue parachute



Full seat



Seat bucket



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