



ACES 5

Advanced
Concept
Ejection
Seats

United States Air Force Next Generation Ejection Seat

The latest addition to the UTC Aerospace Systems family of Advanced Concept Ejection Seats is ACES 5[®]. ACES 5[®] incorporates significant safety and cost saving upgrades compared to the legacy ACES II[®], which is credited with saving more than 650 lives since being introduced in 1978.

UTC Aerospace Systems engineers have incorporated technology improvements, while retaining the proven performance of the legacy ACES II[®], to create the next generation ACES 5[®] ejection seat. Rigorous testing of ACES 5[®] has been conducted to validate the seat's 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, free of lanyards, tethers, and inflatables. Additionally, the modular design of ACES 5[®] simplifies routine maintenance and enables maintainers to quickly return the aircraft back into service.



UTC Aerospace Systems

UTC Aerospace Systems | ACES 5[®]

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 modular seat structure eases performance maintenance by improving overall access to the internal service life components of the seat as another benefit. The seat bucket can also be easily removed to facilitate finding foreign objects in the cockpit and alternatively, the entire seat can be removed from the cockpit without canopy removal, thereby increasing aircraft availability.

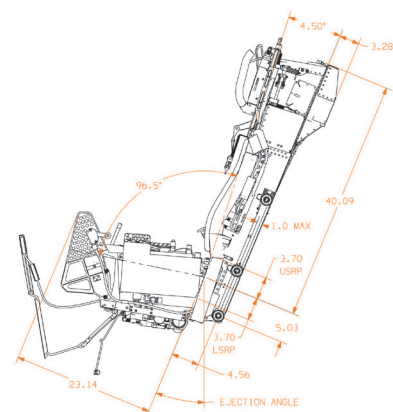
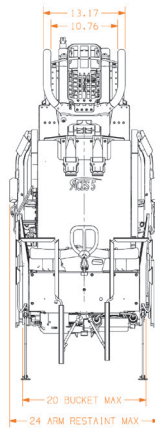
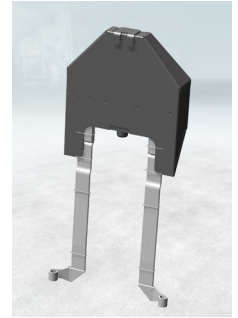
Performance Envelope

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 60,000 feet (for F-22 seat)

Available Features

- Passive head and neck protection exceeding F-35 requirements with <5% risk of major injury
- Passive leg and arm restraints
- Modular structure
- Automatic height adjusting headrest
- Improved drogue system provides improved high-speed stability
- Accommodates JSF Cases 1-8
- Worldwide logistics and support for more than 29 air forces
- Common CAD/PAD with thousands of fielded ACES II[®] ejection seats worldwide
- Stability Package (STAPAC) active pitch stabilization system
- Redundant initiation and sequencing system for critical seat functions for unsurpassed reliability.
- Proven mortar deployed parachute
- Modernized ACES seat sequencer
- Compatible with standard U.S. military aircrew interfaces
- Compatible with USAF Personnel Flight Equipment (PFE)
- Largest survival kit volume (1,500 cubic inches)
- Provides ACES II[®] multi-mode superb performance
- Berry Amendment compliant
- Superior rear visibility
- Improved instructor forward visibility in tandem trainer aircraft
- CKU-5C rocket catapult provides "softest ride" available; spinal injury rate of 1%
- GR7000 main recovery parachute provides lower descent and oscillation rates



Statistics based on internal and external test reports.

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