



Martin-Baker

Joint Strike Fighter Ejection Seat US16E

The System Development & Demonstration (SDD) ejection seat that was selected by Lockheed Martin Aeronautics Company is a further development of the Mk.16 range that has already been successful with the T-6 Texan II, Eurofighter Typhoon, NASA T-38N and USAF T-38 upgrade programmes and other numerous aircraft platforms around the world.

The US16E ejection seat provides an unprecedented balanced optimisation between key performance parameters such as safe terrain clearance limits, physiological loading limits, pilot boarding mass and anthropometric accommodation ranges to fully meet the F-35 Escape System requirements. The US16E will be common to all F-35 aircraft variants.

Specifications

Operating ceiling
Minimum height/speed
Crew boarding mass range
Crew size range
Maximum Speed for ejection
Parachute type
Parachute deployment
Drogue parachute
Drogue deployment
Harness type
Ejection seat operation type
Ejection gun
Ejection initiation

Automatic back-up unit
Electronic Sequencer
Timers
Seat adjustment

Arm restraints
Leg restraints
Oxygen supply

Seat survival kit
Aircrew services

Canopy jettison
Canopy fracturing system
Interseat sequencing system
Auto eject system

US16E JSF

50 000ft (15,250m)
Zero/zero in near level attitude
46.7 to 111.1 kg (nude)
JPATS multi-variate body size cases 1-8
600 KEAS
IGQ Type 6000 aeroconical 4-colour
Cartridge initiated
Yes
Cartridge initiated
MG5 Integrated
Catapult and underseat rocket motor
Twin catapult
Handle on seat bucket initiates gas operated seat firing system
Yes, mechanical system with barostatic time-release
Yes, powered by thermal batteries
Time delays imposed by sequencer and ABU
Up/down actuator operated 28 Vdc with 7.4" stroke
Fore/aft manual tilt mechanism adjustment
Tilt mechanism enables installation to aircraft with different bulkhead configurations
Yes, active system
Yes, passive system
Bottled back-up/emergency oxygen
Connection to main On Board Oxygen Generation System (OBOGS)

Yes + automatic deployment and liferaft inflation
Connection to main oxygen supply, mic/tel, anti-g, thermal cooling
Interface to helmet
No
Yes
N/A
Active on STOVL variant only



EJECTION SEAT