

# Mk16A

## EJECTION SEAT FOR EUROFIGHTER TYPHOON



**OVER 614 MK16A EJECTION SEATS CURRENTLY IN SERVICE**



**4 LIVES SAVED USING A MK16A EJECTION SEAT**



The development of the Mk16A Ejection Seat for the Eurofighter Typhoon was carried out at Martin-Baker's facilities at Denham, Chalgrove and Langford Lodge. Due to the capabilities and wide operating envelope of the aircraft, Martin-Baker was presented with a series of challenges which have had to be overcome during the development of this Seat, such as the Typhoon specific accommodation range, as well as achieving compatibility with programme specific equipment such as the BAE Systems Head Equipment (HEA), Chemical and Biological (CB) protection and Aircrew Flight Equipment (AFE).

The Mk16A Ejection Seat utilises a second-generation digital seat sequencer which incorporates a strategy of continuous sensing of external environmental parameters. Under certain speed and altitude conditions the recovery timings at which the parachute is deployed are varied in order to optimise parachute inflation loads and maximise terrain clearance.

### SPECIFICATIONS

### Mk16A TYPHOON

Operating ceiling	55,000ft (15,244m)
Minimum height/speed	
Crew boarding mass range	Zero/zero in near level attitude
Crew size range	61.0 to 133.5 kg
Maximum Speed for ejection	Eurofighter specific aircrew size range
Parachute type	600 KCAS
Parachute deployment	IGQ 5000 aeroconical 4-colour parachute
Drogue parachute	Cartridge initiated, electronic sequencer controlled
Drogue deployment	Yes, ribbon type
Aero-surface deployment	Cartridge initiated, electronic sequencer controlled
Neck Protection	Yes, upper and lower. Lower aero-surface is gas operated
Harness type	
Ejection seat operation type	No
Ejection gun / catapult	Integrated Gen 4 harness with Martin-Baker QRB
Ejection initiation	Ejection gun and Under Seat Rocket Motor
Automatic back-up unit	Twin tube ejection gun / catapult
Electronic sequencer	Handle on seat pan initiates gas operated seat firing system
Barostatic time-release unit	
Timers	Yes, barostat controlled
Seat adjustment	Yes, powered by thermal batteries
Arm restraints	No
Leg restraints	Time delays for canopy jettison system interface
Oxygen supply	28 Vdc Up/down actuator operated
Personal survival pack (PSP)	Yes, Active Type II arm restraint system
Aircrew services	Passive Leg Restraint System Auxiliary Oxygen Bottle Yes + automatic deployment and automatic liferaft inflation Aircrew Services Package, interfaces for: - breathing gas    - CB ventilation supply - mic/tel            - anti-g supply HEA Services Module Liquid suit connector assembly Auxiliary oxygen bottle
Canopy jettison System (CJS)	
Canopy Severance System (CSS)	Yes, Martin-Baker supplied system
Inter-seat sequencing system (ISS)	No
Auto Eject System (AES)	Yes, 3-mode selector



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