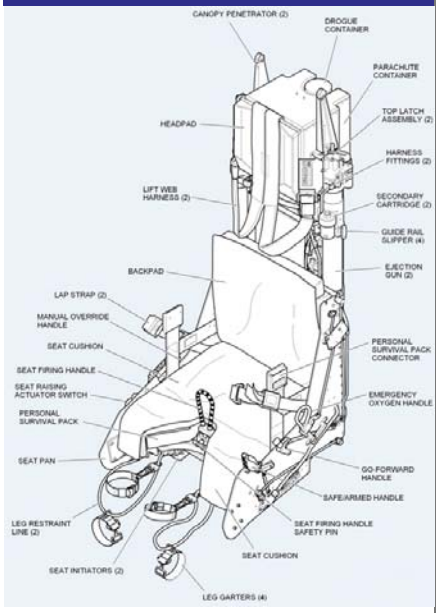
US16T Seat – T-38 and F-5
Escape System Upgrade Program (ESUP)

In June 2005, Martin-Baker was selected to upgrade the escape system in the supersonic T-38 Talon advanced trainers of the U.S Air Force, Air Education and Training Command (AETC). This major project will improve pilot safety, increase accommodation and guarantee ejection seat logistic and technical support to ensure that the Talon remains one of the best advanced training aircraft in the world.

The US16T seat is based closely upon the US16LN that Martin-Baker delivered to NASA for their T-38 Talon fleet used for astronaut training. The seat offers state-of-the-art life-saving performance, interface with existing canopy jettison system, survival kit contents matched to operator's requirements and to suit aircraft role, maximum possible pilot size and weight range accommodation (without airframe changes). The seat installation is simple and provides reduced life cycle costs.

SPECIFICATIONS



Operating ceiling	50 000 ft (15,250 m)
Minimum height/speed	Zero/zero in near level attitude
Crew boarding mass range	57.1-123.8 kg
Crew size range	JPATS multi-variate body size cases 1 to 6
Maximum speed for ejection	600 KIAS
Parachute type	GQ Type 5000
Parachute deployment	Cartridge initiated
Drogue parachute	Yes
Drogue deployment	Cartridge initiated, tilt and deploy
Harness type	Combined or Torso
Ejection seat operation type	Twin ejection guns and underseat rocket motor
Ejection initiation	Handle on seat pan initiates gas operated seat firing system
Automatic back-up unit	Yes
Electronic sequencer	No
Barostatic time-release unit	Yes + g-restrictor. Initiated by gas
Timers	Time delay cartridges
Seat adjustment	Up/down actuator operated 115 Vac fore/aft manual backrest adjustment
Arm restraints	No
Leg restraints	Yes, four garters
Oxygen supply	Bottled emergency oxygen
Personal survival pack	Yes + Automatic Deployment and Liferaft Inflation
Aircrew services	Connection to main oxygen supply, mic/tel
Command ejection	Yes
Canopy jettison	Yes
Miniature detonating cord	No
Interseat sequencing system	Yes, via mode selector

INSTALLATIONS

F-5