

MARTIN BAKER US16LA-JPATS LOW SPEED EJECTION SEAT

3710.7U

Unless operationally unfeasible, an NAP, AMSO, or FS shall address the aeromedical aspects of ejection and ground egress. Renewal may be accomplished within 60 days preceding expiration of current qualification. Qualification will expire after 12 months (expiration date is the last day of the month trained). When transitioning to aircraft with a different type of ejection system, commanding officers shall ensure that a thorough brief on the new system is conducted before the initial flight. The transition training shall concentrate on the differences in the system (i.e., ejection decisions, the envelope of the new system, seat-man separation, ejection initiation, ejection sequence, normal operations and malfunctions)

SEAT BRIEF AND EGRESS

1. Canopy system
 - a. Ejection with canopy in any position other than fully locked could cause seat malfunction and serious injury.
 - b. With aircrew head above canopy breakers, severe head and neck injury may occur
2. Strapping in (e.g., proper leg restraint placement, as applicable)
 - a. Garter connections and proper positioning
 - b. Leg restraint adjustment
 - c. SSK function, adjustment, and purpose
 - d. Lap belt frost fitting function, adjustment and purpose
 - e. G-suit connection
 - f. Emergency oxygen hose and main oxygen hose function and purpose
 - g. Shoulder restraint Frost fittings function and purpose
 - h. Communication cords function and purpose
 - i. CRU-60 function and purpose (do not remove from harness connection point)
 - j. MOR handle function and purpose (only can be used after ejection)
 - k. Emergency O2 actuator function and purpose
 - i. disconnect main O2
 - ii. lasts up to 10 min
 - l. Seat adjustment function, purpose, and adjustment
 - m. Canopy breakers
 - n. Ejection handle
 - o. Seat safety pin
 - p. ISS purpose and function
 - i. 2 mode (both and solo)
 - ii. 3 mode (command forward, both, and solo)
 - q. Seat kit release handle location and function
 - i. Do not use handle to release seat kit over water or land
 - ii. If SSK is not needed post ejection, you may disconnect SSK fitting on descent by releasing SSK fittings
 - iii. If released the kit is deployed and hangs from 12 foot lanyard
 - r. ADU function and purpose (always leave in manual)
 - s. URT-33 location and purpose
 - i. Search areas range from 12-15 nautical miles
 - ii. Doesn't signal when submerged
 - iii. Starts signaling automatically upon ejection
3. SSK
 - a. Contents

- i. Compass
 - ii. Signal smokes
 - iii. Mirror
 - iv. Pencil flares
 - v. First aid kit
 - vi. PRC-90 survival radio
 - vii. URT-33 emergency locator beacon
- b. After water entry, only release **right** SSK fitting because releasing the left side may result in loss of SSK and survival items
- 4. Ejection envelope
 - a. Zero airspeed zero altitude capability
 - b. OPNAVINST range to 103-245 lbs.
 - c. Functions from ground to 35,000 ft
 - d. 370 KIAS maximum
 - e. 125-180 KIAS is the optimum airspeed for ejection
- 5. IROK/ADR/PLF (see poster)
 - a. Over water (no raft)
 - b. Over land
- 6. Seat/man separation and chute deployment
 - a. Chute will deploy between 14K-16K
 - b. High altitude (>15K)
 - i. Barostatic time release unit monitors altitude and g load conditions
 - ii. When altitude and g load conditions are satisfactory chute is deployed and seat man separation is initiated
 - iii. If over high terrain (>8K), consider using the MOR
 - c. Low altitude (8-15K)
 - i. G load monitored when satisfactory chute deployment and seat man separation is initiated
 - d. Low altitude (<8K)
 - i. Chute deploys and seat man separations occurs
- 7. Ground emergency egress (with/without seat kit).
 - i. ISS mode selector – SOLO
 - ii. Ejection seat pin – Installed BOTH
 - iii. PARKING BRAKE – As required
 - iv. Canopy – Open
 - IF Canopy can not be opened or situation requires right side egress:
 - v. CFS handle – Rotate and Pull (Both)
 - vi. Shoulder straps, lap belt, SSK fittings, and leg garters – Release (BOTH)
 - vii. BAT, GEN, and AUX BAT switches – OFF
 - viii. Evacuate aircraft
- 8. Discuss CTW-6 recent incidents and HAZREPS that are relevant to egress and ejection

AEROMEDICAL ASPECTS OF EJECTION

- 9. Ejection decision
 - a. Out of control flight eject by 6K AGL
 - b. Controlled flight eject no lower than 2K AGL
 - c. Should be briefed prior to flight
 - d. Psychological facts that cause ejection delay
- 10. Ejection envelope
 - a. Zero airspeed zero altitude capability
 - b. OPNAVINST range to 103-245 lbs.
 - c. Functions properly from ground to 35,000 ft
 - d. 370 KIAS maximum

- e. 125-180 KIAS is the optimum airspeed for ejection
- 11. Optimal body position
 - a. Head firmly against headrest
 - b. Elevate chin 10 degrees press shoulders back against the seat
 - c. Hold elbows firmly to sides
 - d. Press buttocks firmly to the back of the seat
 - e. Attempt to place thighs firmly to the seat
 - f. Place heels firmly on the deck
- 12. Ejection initiation
 - a. 40-60 lbs of force required to pull ejection seat handle
 - b. With command ejection selector in SOLO and ejection seat handles are pulled simultaneously seats may collide
 - c. Use one of the 2 approved hand position for ejection initiation
 - d. Pull ejection handle up and towards abdomen keeping elbows close towards sides
- 13. Seat/man separation and chute deployment
 - a. High altitude (>15K)
 - i. Barostatic time release unit monitors altitude and g load conditions
 - ii. When altitude and g load conditions are satisfactory chute is deployed and seat man separation is initiated
 - iii. If over high terrain, consider using the MOR
 - b. Low altitude (8-15K)
 - i. G load monitored when satisfactory chute deployment and seat man separation is initiated
 - c. Low altitude (<8K)
 - i. Chute deploys and seat man separations occurs
- 14. IROK/ADR/PLF (if not covered during egress)
 - a. Over water (no raft)
 - b. Over land
 - c. PLF
 - i. Balls of feet
 - ii. Side of calf
 - iii. Side of thigh
 - iv. Side of buttocks
 - v. Shoulder blade
- 15. Hazards
 - a. Flash burn
 - b. Cockpit missile hazards/loose gear
 - c. Poor body position
 - d. Excessively heavy or light body weight
 - i. Reduces stability of seat post ejection
 - ii. Individuals <103 could be injured during ejection
 - iii. Individuals >245 lbs may not clear aircraft during ejection
 - iv. Heavy individuals have a higher descent rate after parachute deployment
 - e. Wind blast injuries
 - i. Ensure mask is on and visor is down
 - ii. Proper body position is key to reducing flailing injuries
 - f. ALSS fit
 - i. DO NOT attempt to make adjustments to your torso harness. If you have fitting issues with the harness see your PR shop
 - g. Landing in winds in excess of 25 knots increases risk of severe injury or death
- 16. Discuss CTW-6 recent incidents and HAZREPS that are relevant ejection