

SAFETY SUPPLEMENT

TECHNICAL MANUAL

AEROSPACE EMERGENCY RESCUE AND MISHAP RESPONSE INFORMATION (EMERGENCY SERVICES)

THIS PUBLICATION SUPPLEMENTS TO 00-105E-9 REVISION 9, DATED 1 JULY 2004, LOCATED AT WEB SITE:
<http://www.robins.af.mil/logistics/LGEDA/Documents/to00-105e-9.htm>.

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PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

12 October 2004

1. PURPOSE.

This supplement provides instructions for update of TO 00-105E-9 Revision 9, dated 1 July 2004, affecting Chapter 17 NASA Aircraft. This supplement is a new file for the latest information regarding the T-38N and its aircraft procedures.

2. INSTRUCTIONS.

- a. This information, formatted in PDF, can be downloaded and printed from this web site by the end user. Use the most current Adobe Reader for this function, available free from Adobe.com.
- b. This supplement to Chapter 17 adds information based on newly researched source data information regarding this NASA aircraft. The new file should be added to Chapter 17 in TO 00-105E-9 Revision 9. The end user should save this file and print the affected pages, if applicable to the user's operation. File a copy of this Safety Supplement with the main Technical Order according to current regulations.

NOTE

This information should also be included in mobility boxes where applicable. If your unit or a part of your unit is serving elsewhere, they should be informed of this Safety Supplement and how to obtain it. See TO 00-5-2 paragraphs 1-1.4, 1-1.4.1, and 1-1.6 for Local Reproduction of TOs and Digital Media guidance.

THE END

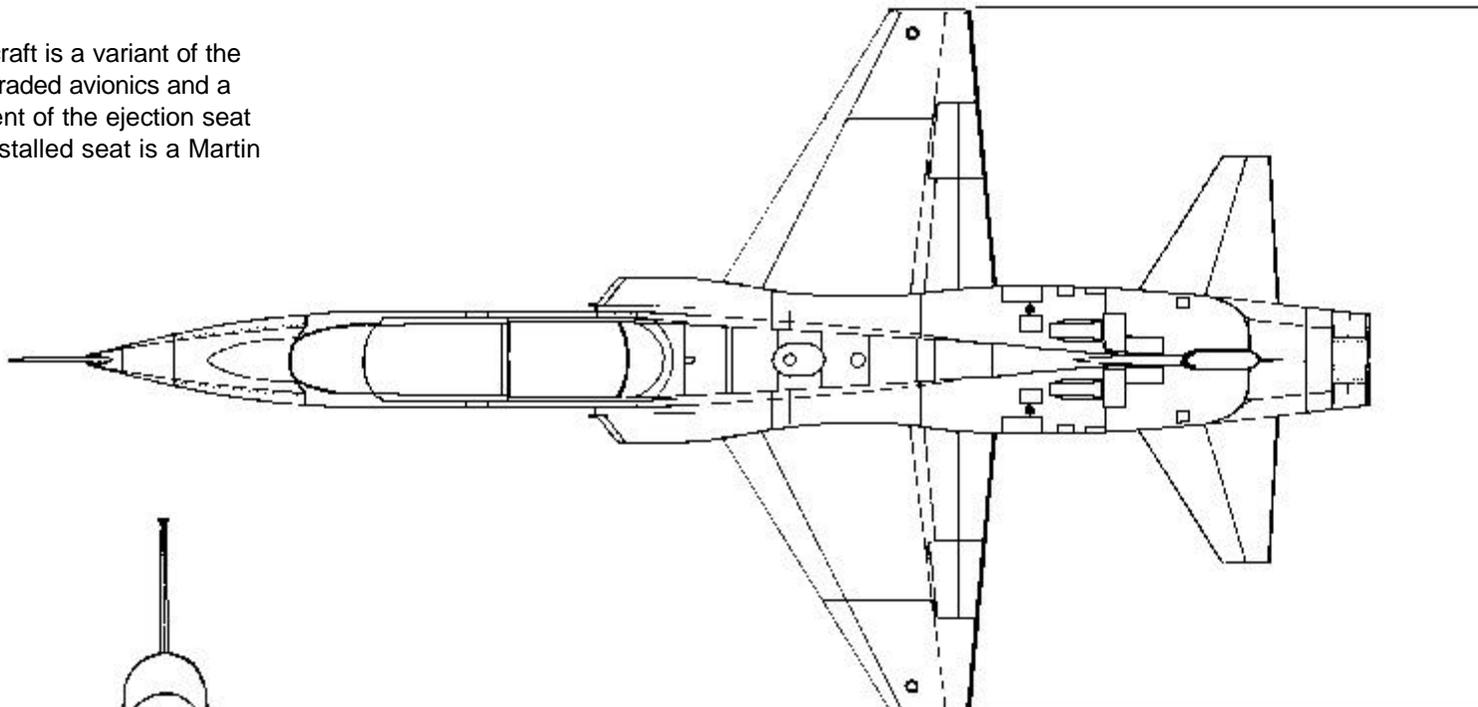
AIRCRAFT PAINT SCHEME



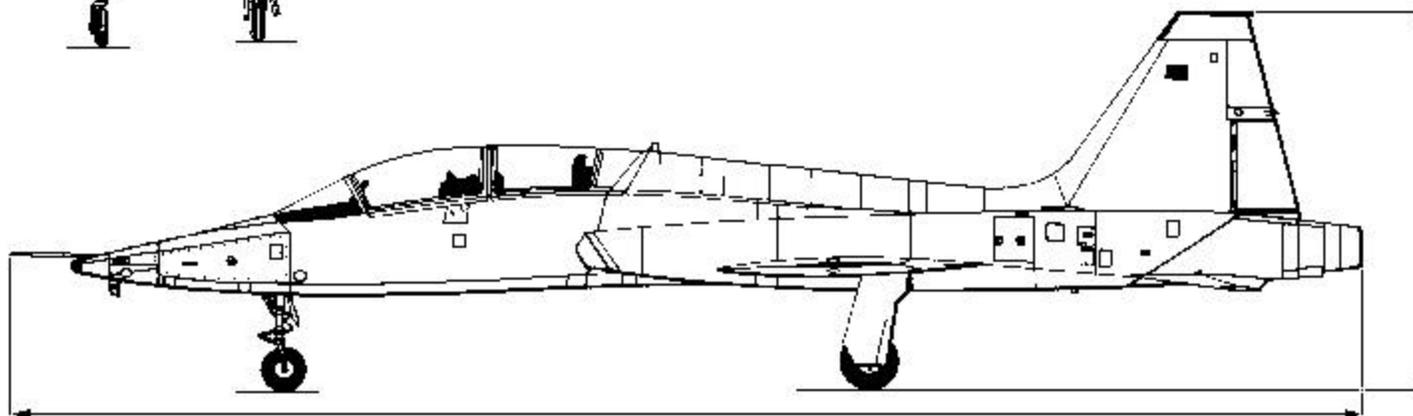
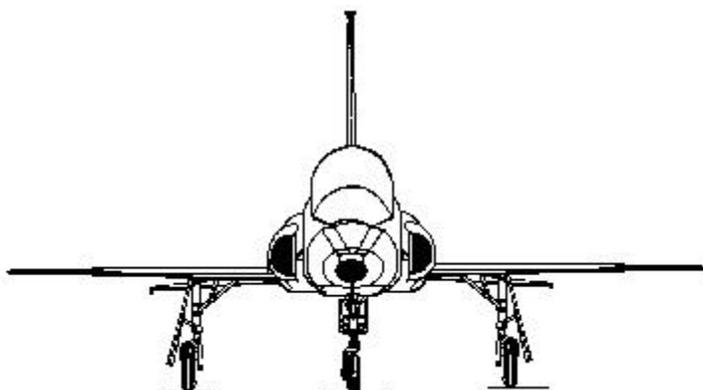
AIRCRAFT DIMENSIONS

T-38N**NOTE:**

This NASA aircraft is a variant of the T-38A with upgraded avionics and a total replacement of the ejection seat system. The installed seat is a Martin Baker Mk.16E.



WING SPAN
25 FT
(7.6 M)



HEIGHT
12.9 FT
(3.8 M)

LENGTH
46.3 FT
(14 M)

AIRCRAFT SKIN PENETRATION POINTS, MATERIALS, FIRE ACCESS DOOR AND HAZARD AREAS

WARNING

Magnezium fires should be fought with dry chemical and not water. Water usage will spread fire.



PLEXIGLASS
- WINDSHIELD AND CANOPIES



MAGNEZIUM
- WHEELS
- AFT OF NOSE CONE
- COCKPIT
- INTAKE COVERINGS
- CENTER OF FUSLAGE
- FORWARD ENGINE AREA
- AREA AROUND VERTICAL STABILIZER



FIRE ACCESS DOOR

GUN BAYS (BOTH SIDES) BETWEEN F.S. 47.50 AND F.S. 87.50

PITOT TUBE HAZARD: UNPAINTED AREA COULD BE HOT AND CAN PUNCTURE

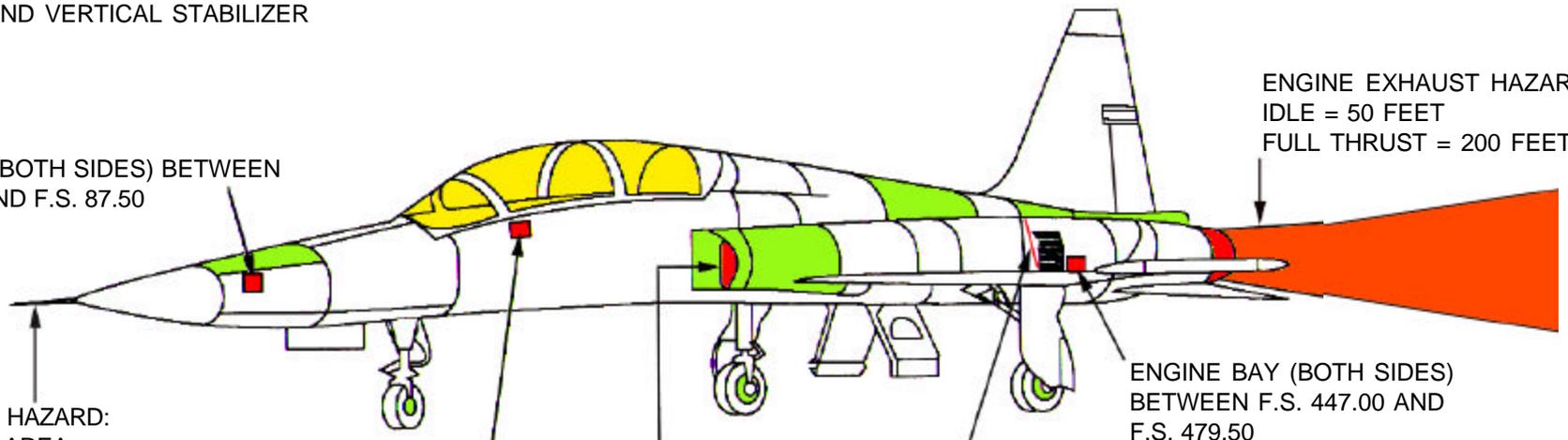
COCKPIT (BOTH SIDES) BETWEEN F.S. 220.76 AND F.S. 235.50. ABOVE H.L.R. AND BELOW LONGERON

ENGINE INTAKE HAZARD: 25 FEET

TURBINE HAZARD AREA EXTENDS TO 1500 FEET

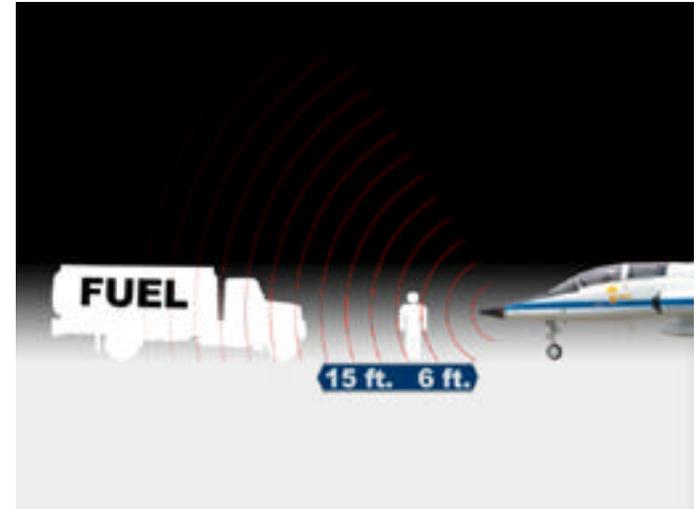
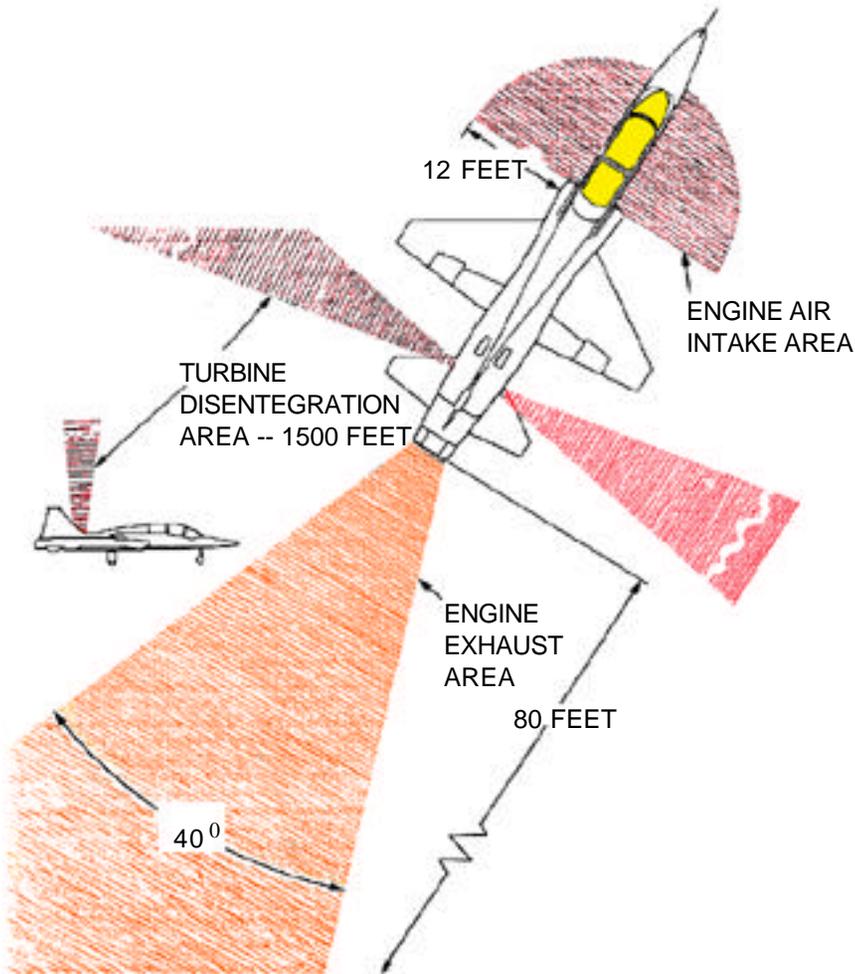
ENGINE BAY (BOTH SIDES) BETWEEN F.S. 447.00 AND F.S. 479.50

ENGINE EXHAUST HAZARDS: IDLE = 50 FEET FULL THRUST = 200 FEET

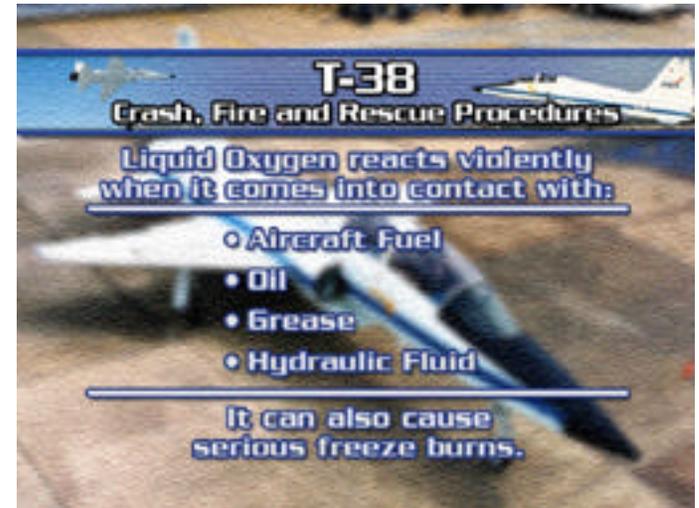


AIRCRAFT HAZARD AREAS

	DISTANCE IN FEET	EXHAUST VELOCITY	EXHAUST TEMPERATURE
MAXIMUM THRUST	80	NEGLIGIBLE	150 ⁰ F (66 ⁰ C)
	60	34 MPH	250 ⁰ F (121 ⁰ C)
	30	260 MPH	600 ⁰ F (316 ⁰ C)
	20	500 MPH	900 ⁰ F (482 ⁰ C)
TAXI THRUST (IDLE)	35	NEGLIGIBLE	150 ⁰ F (66 ⁰ C)
	30	20 MPH	175 ⁰ F (80 ⁰ C)
	20	85 MPH	275 ⁰ F (135 ⁰ C)



FUEL TRUCK DISTANCE AND RADAR EMISSION AREA

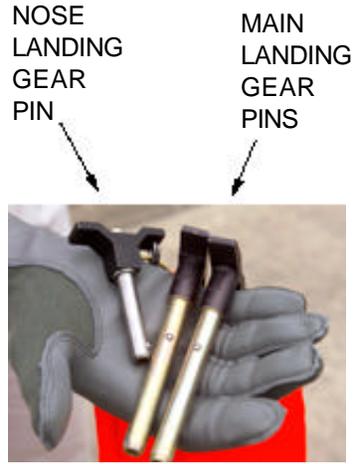


LIQUID OXYGEN HAZARDS

LANDING GEAR PINS AND FUEL SERVICING PORT



NOSE LANDING GEAR PIN LOCATION



MAIN LANDING GEAR PIN LOCATION



FUEL SERVICING PORT



FUEL SERVICING PORT

SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw
Safety Pins
Fire Drill II

AIRCRAFT ENTRY

1. NORMAL ENTRY

- a. Push latches to open door, located on left side of fuselage.

CAUTION

Opening canopy under windy conditions could cause inadvertant canopy separation from aircraft.

- b. Pull handle(s) out until engaged and rotate clockwise to unlock and raise canopy, give canopy assistance while rotating handle.

NOTE:

Canopies are secure when raised to full open position.

2. EMERGENCY ENTRY

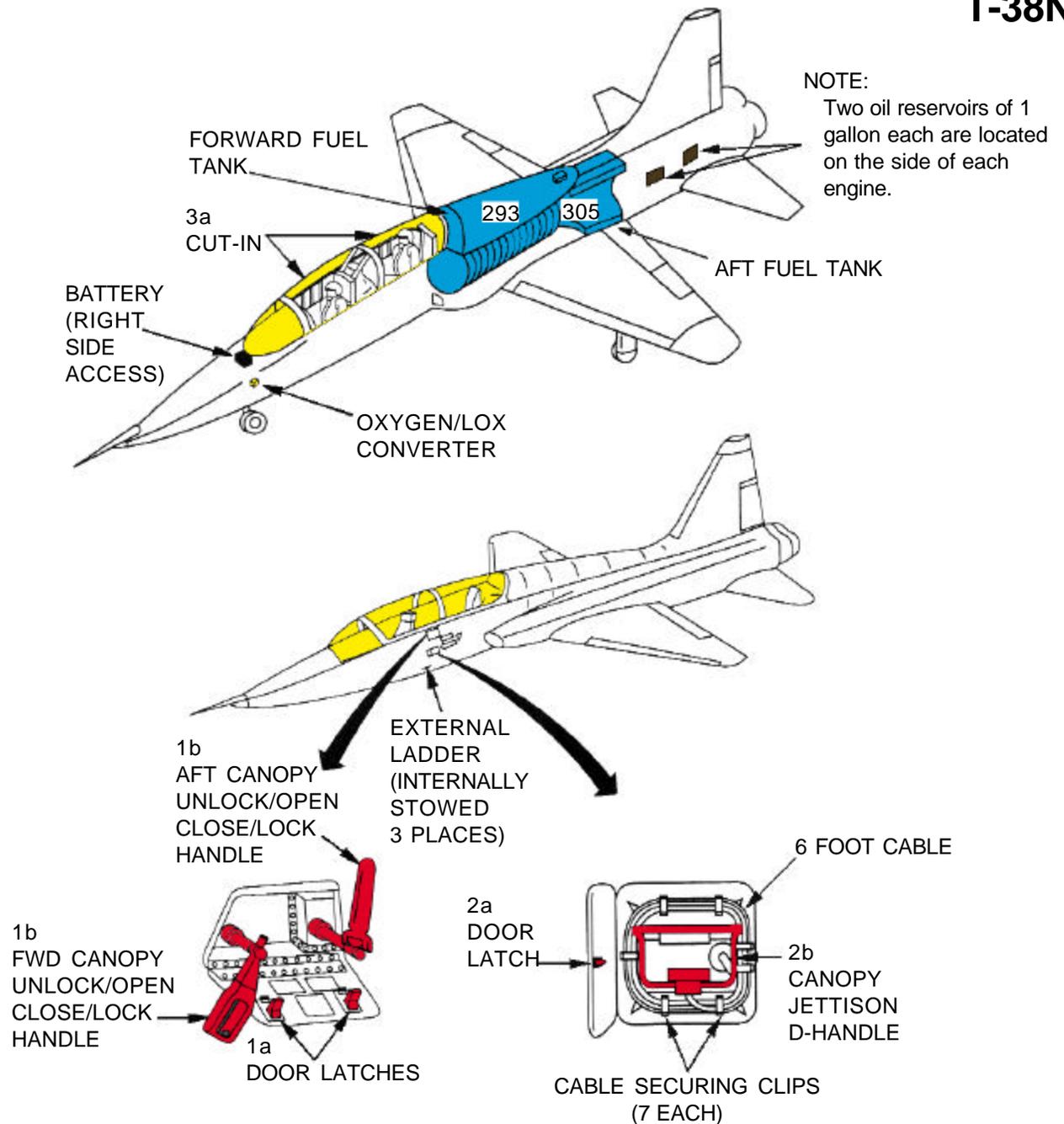
WARNING

Forward canopy fracturing system only operates during forward seat ejection. Insure both canopies are closed and locked before jettisoning or injury to personnel can occur. Insure no fuel is in vicinity.

- a. Push latch on canopy jettison access door to open, located on left and right side of forward fuselage.
b. Pull canopy jettison D-handle, approximately 6 feet to jettison both canopies.

3. CUT-IN

- a. Cut canopy along canopy frame on all 4 sides. When using an axe, a CO2 treatment can make the cut-in easier by making the canopy brittle.



AIRCRAFT ENTRY AND CANOPY JETTISON CONTROLS



1a, 1b
CANOPY ENTRY CONTROLS



2a
EXTERNAL CANOPY JETTISON DOOR (BOTH SIDES)



2b
CANOPY JETTISON T-HANDLE



2b
CANOPY JETTISON T-HANDLE OPERATION

CANOPY CUT-IN



3a
CANOPY CUT-IN WITH POWER SAW



3a
CANOPY CUT-IN DEVICES



FORWARD CANOPY FRACTURING SYSTEM (HI-LITED)
(CUT-IN IS SAFE WITH DETONATING CORD)



AFT CANOPY (NO FRACTURING SYSTEM)

ENGINE SHUTDOWN

1. ENGINE SHUTDOWN (FWD COCKPIT ONLY)

NOTE:

Shutdown is accomplished only from the forward cockpit. This aircraft has a throttle gate installed on the aft portion of the throttle console in the forward cockpit. The throttle gate must be disengaged prior to proceeding.

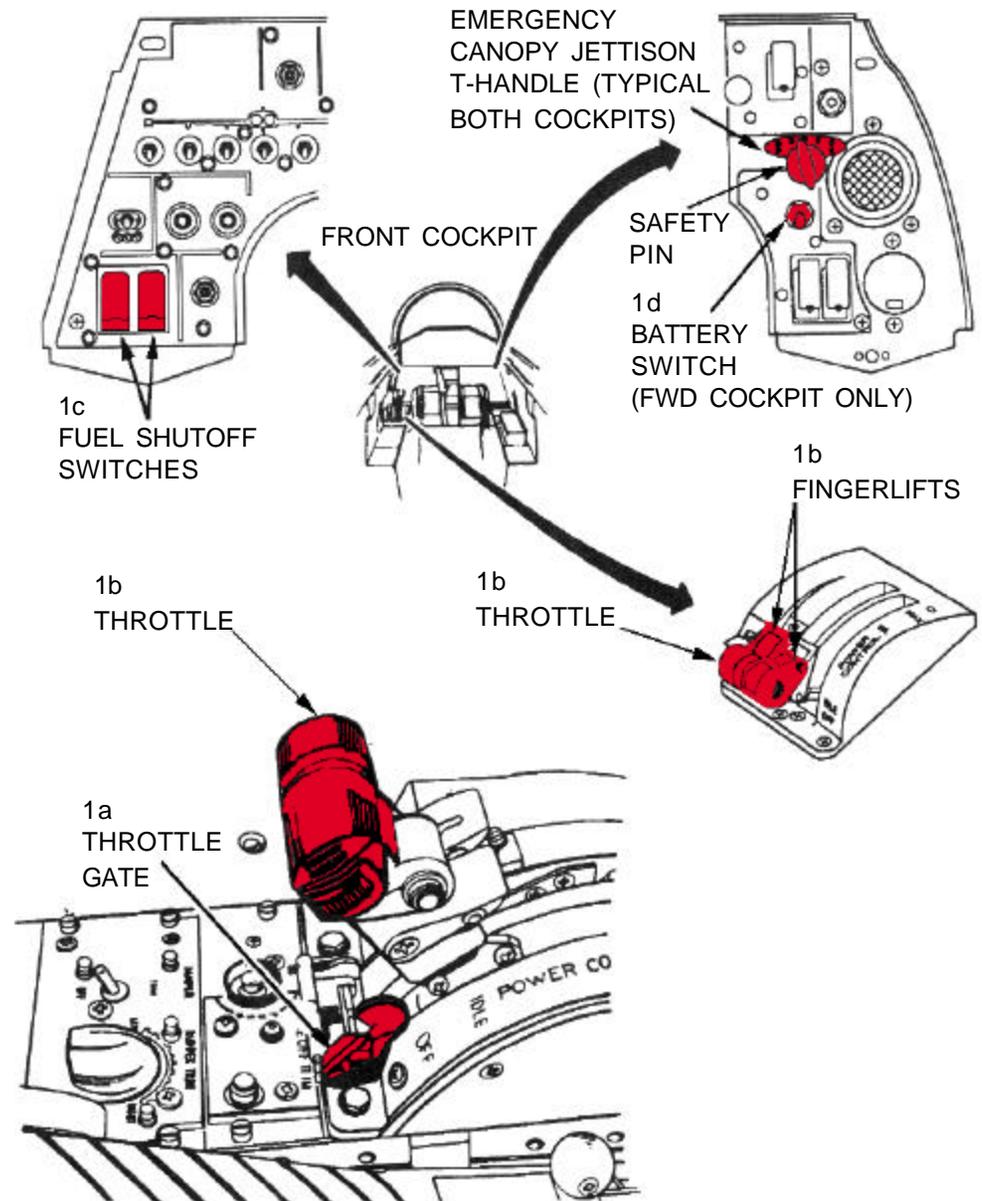
- Disengage throttle gate by pushing the red release arm inboard (toward ejection seat).
- Raise finger lifts and retard throttles, located on left console panel, to full aft OFF position.
- Push red guards down and place the two fuel shutoff switches, located on the left forward vertical control panel, to the CLOSED (off) position. Wait 10 seconds for fuel valve to operate.
- Place battery switch, located on right vertical control panel, down to OFF position.
- If weather radar switch is ON, located under the fuel shutoff switches, place switch in OFF position.

NOTE:

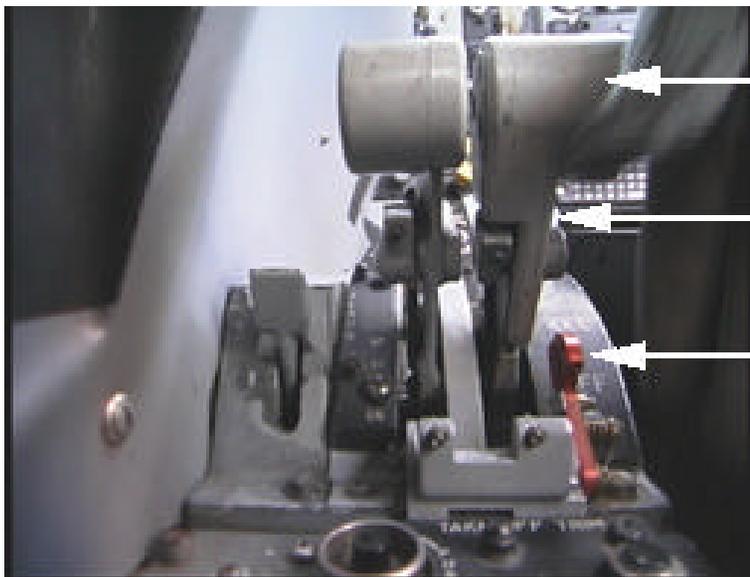
- Engines can be throttled to idle from rear cockpit.
- If engines fail to shutdown, turn battery switch ON and place fuel shutoff switches, located on left vertical panel, to CLOSED position. Place battery switch to OFF position.

WARNING

If emergency canopy jettison T-handle has been actuated, but canopy has not jettisoned, cut canopy hose at top aft of seat structure to prevent inadvertant canopy jettison.



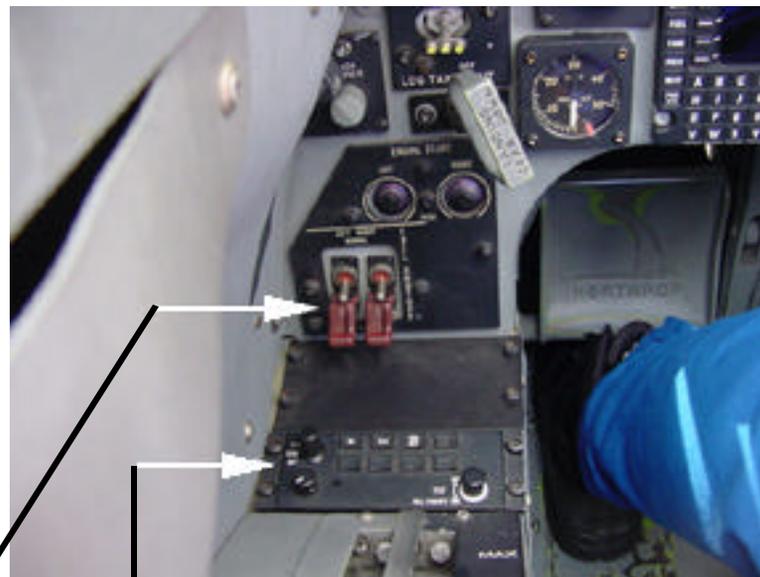
ENGINE SHUTDOWN COMPONENTS



1b ENGINE THROTTLES

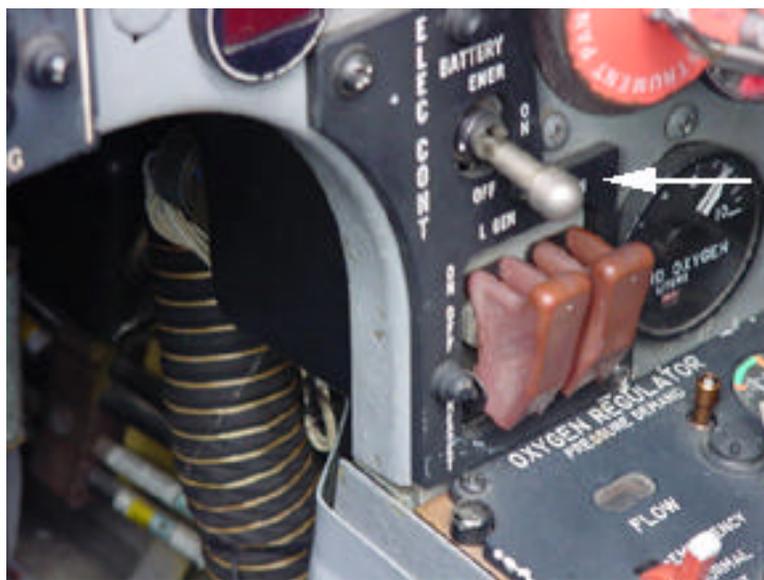
1b FINGER LIFTS

1a THROTTLE GATE



1c FUEL SHUTOFF SWITCHES

1e WEATHER RADAR SWITCH



1d BATTERY SWITCH



SAFETYING EJECTION SYSTEM AND AIRCREW EXTRACTION

1. NORMAL SAFETYING

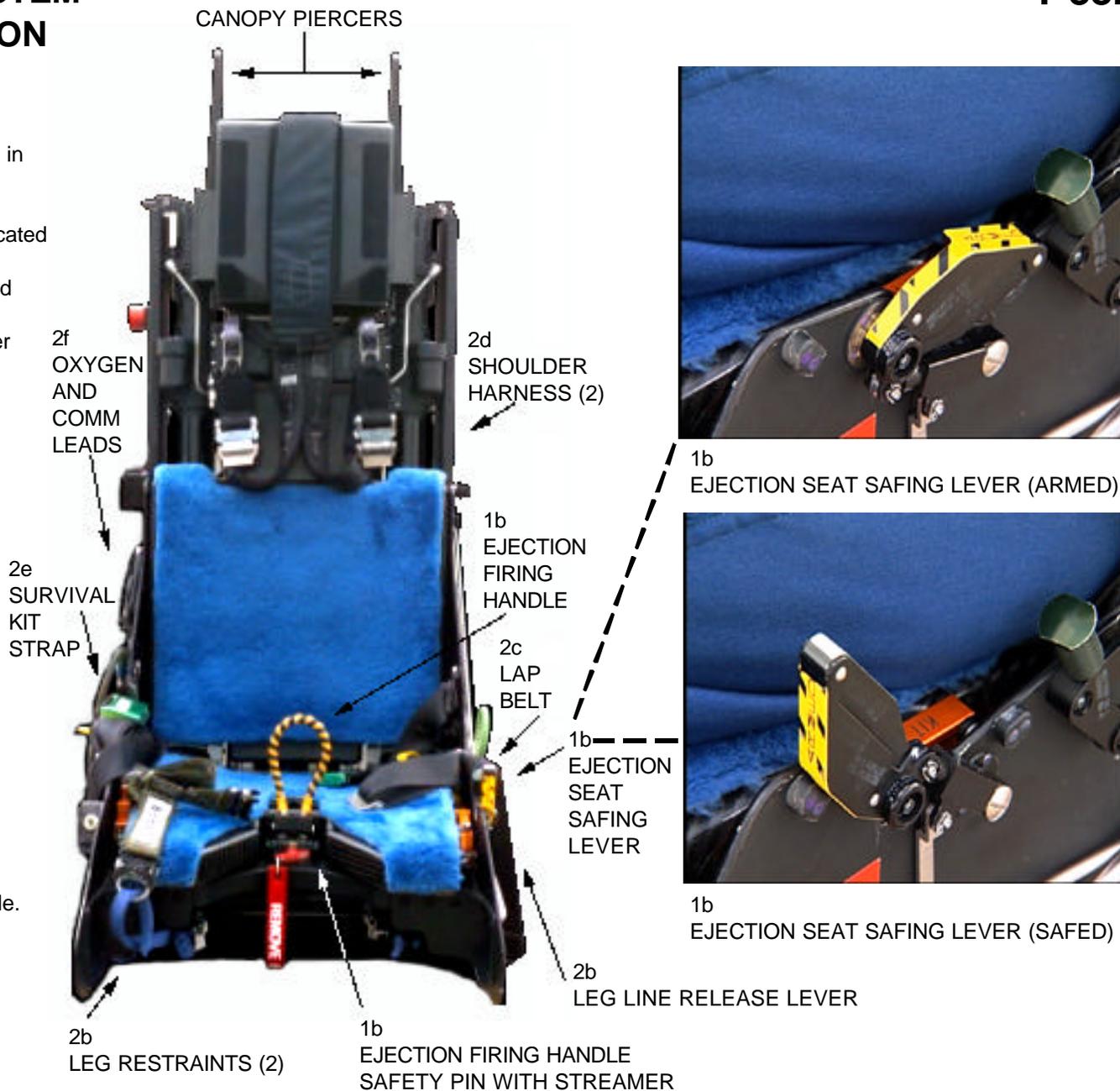
NOTE:

Flight status safety pins are normally stored in the right forward console.

- Rotate ejection seat safing lever forward, located on left side of seat, to the SAFE position.
- Insert seat safety pin in firing handle, located forward center of seat.
- Insert internal canopy jettison safety pin over canopy jettison handle located on forward right console.
- Place the interseat sequencing handle, located at the left side console, in the SOLO mode.

2. AIRCREW EXTRACTION

- Release tab on helmet to release oxygen mask allowing crewmember to breathe.
- Pull leg line release lever, located on lower left side of seat to release leg restraints. Thigh and ankle garter buckles may have to be operated to prevent leg restraint entanglement during extraction process.
- Unlatch the lap belt at the center release mechanism.
- Unlatch each shoulder harness strap using release buckle.
- Disconnect the survival kit on each side by depressing the button located in each buckle.
- The oxygen hose and communication lead will automatically disconnect and fall away as the crewmember is extracted.



CANOPY SAFETYING AND EJECT MODE SELECTOR



1c
INTERNAL CANOPY JETTISON T-HANDLE (ARMED)



EJECTION SEAT AND CANOPY JETTISON SAFETY PINS



1c
INTERNAL CANOPY JETTISON T-HANDLE (SAFETIED)



1d
INTERSEAT SEQUENCING HANDLE
EJECTION MODES:
BOTH--BOTH SEATS EJECT
FWD--FWD SEAT EJECTS
SOLO--SEATS EJECT SEPARATELY



BOTH
FWD
SOLO



1d
SOLO
MODE

AIRCREW EXTRACTION



2a
RELEASING OXYGEN MASK



2b
RELEASING LEG LINE RELEASE LEVER



2c
MANUALLY RELEASING LEG GARTER



2d
RELEASING LAP BELT



2e
RELEASING SHOULDER HARNESS



2f
RELEASING SURVIVAL KIT BELT



2g
OXYGEN AND COMM LEAD CONNECTIONS

OXYGEN SHUTDOWN AND BATTERY REMOVAL

1. OXYGEN SHUTDOWN

NOTE:

Use this procedure only if time permits.

- a. After the crewmember(s) have been extracted, the oxygen system should be shutdown.
- b. Place the red and white oxygen switches, located on the forward right console, to the EMERGENCY position.

2. BATTERY REMOVAL

NOTE:

If battery removal is necessary to remove power or the hazards a battery would cause if left installed, remove the battery from the aircraft.

- a. Locate the aircraft battery in the forward aircraft compartment just aft of the nose.
- b. Disconnect the battery terminals.
- c. Disconnect the battery strap.
- d. Remove the battery to safe distance.



1b
OXYGEN CONTROL PANEL



2b
BATTERY TERMINALS



2c
BATTERY STRAP

AIRCRAFT TOWING WITH TOW BAR

1. AIRCRAFT TOWING WITH TOW BAR

- a. Install safety pins in all wheel gears.
- b. Install tow bar to nose wheel gear.
- c. Install tow bar to tow vehicle.
- d. Place tow person in cockpit in case braking is required during towing process.
- e. Place wing walkers on each wing during towing operation.
- f. Tow aircraft forward to designated location.



AIRCRAFT TOWING WITH TOW CABLE

1. AIRCRAFT TOWING WITH TOW CABLE

- a. Install safety pin in all wheel gears.
- b. Install tow cable to main wheel gears.
- c. Install tow cable to tow vehicle.
- d. Place tow person in cockpit in case braking is required during towing process.
- e. Place wing walkers on each wing and one nose walker during towing operation.
- f. Tow aircraft backward to designated location.

