DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
AIRCRAFT EMERGENCY RESCUE INFORMATION (FIRE PROTECTION) SOURCE DATA	DI-TMSS-81532

3. DESCRIPTION/PURPOSE

3.1 This information is used as source data for the preparation and maintenance of Technical Order (TO) 00-105E-9, Aircraft Emergency Rescue Information (Fire Protection). This TO is used by firefighting personnel to rescue aircrew and passengers in the event of an aircraft accident.

4. APPROVAL DATE *(YYMMDD)*	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
970124	F-16		

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is applicable to the acquisition and modification of all aircraft, helicopters and aircraft systems that are to be used by the United States Air Force and United States Army and require fire protection and emergency rescue.

7.3 MIL-STD-38784 may be obtained from the Standardization Documents Order Clerk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
		F7223

10. PREPARATION INSTRUCTIONS

10.1 Reference documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.

10.2 Format. Contractor format is acceptable. Abbreviations and acronyms shall be kept to a minimum and be in accordance with MIL-STD-38784.

10.3 Content. The source data shall include the following:

10.3.1 System coverage. All aircraft, helicopters or aircraft systems that are to be used by the United States Air Force and United States Army and require fire protection and emergency rescue.

10.3.2 Illustrations. (See Figures 1 thru 8) Illustrations needed in conjunction with this data are extracted from existing Technical Manuals (TM) or engineering drawings that are developed for the aircraft or system being acquired. Illustrations are created only when existing illustrations found in the relevant TMs and engineering drawings can not satisfy the requirements of this DID. The following apply to illustrations:

a. Illustrations are in accordance with MIL-STD-38784 with the exception that they do not have figure numbers and color is used as described in 10.3.2.1 below.

b. Illustrations are turned 90 degrees counterclockwise (landscape).

c. Each type and model aircraft starts on a left-hand page.

(Continued on page 2)

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Block 10, Preparation Instructions (Continued)

d. The official military or commercial aircraft designations (F-15, C-5, B-2) positioned in the upper right corner of left-hand pages and in the lower right corner of right-hand pages.

e. A list of special tools and equipment required is boxed in the upper left corner of the first page for each type and model of aircraft (see Figure 1 and 2).

f. Aircraft entry and model designation (F-15, C-5, B-2) is as shown in Figures 1 and 2.

g. Illustrations are coordinated with text by showing applicable paragraph numbers (see Figure 2).

10.3.2.1 Color in illustrations. The following items are depicted on appropriate illustrations and are colored using the following guidelines:

a. Fuel systems - blue.

b. Oxygen systems and cut-in areas - yellow.

c. Armament (interior and exterior) - red.

d. Battery (main and auxiliaries) - black.

e. Hydrazine - purple.

f. Nitrogen systems - orange.

g. Ammonia - green.

h. Hydraulic systems - brown.

i. Emergency and normal entry details:

(1) Emergency releases (interior and exterior) - red.
(2) Ejection handgrips - red.
(3) Jettison handles (canopies, doors, and hatches) - red.
(4) Ejection catapult safety pins - red.

j. Engine shutdown details:

(1) Fire shutdown switches - red.
(2) T-handles - red.
(3) Power and battery switches - red.
(4) Throttle levers - red.
(5) Fuel selector switches - red.
(6) Mixture levers - red.
(7) Auxiliary Power Unit (APU) switches - red.

Block 10, Preparation Instructions (Continued)

k. Ejection seat details:

(1) Firing triggers - red.
(2) Arming levers - red.
(3) Safety pins - red.
(4) Initiators - red.
(5) Rocket catapult - red.
(6) Initiator hose quick disconnects - red.

l. Aircrew extraction details:

(1) Restraint belts - red.
(2) Releases for restraint belts, harnesses, straps and handles, survival kits - red.
(3) Personal service quick disconnects - red.

10.3.3 External hazards. (see Figure 3) Illustrations and information for all external hazards such as emitting radar zones, approach areas to engine intakes and exhausts, propeller clearances, ejected seat and jettisoned canopy envelopes with associated shrapnel danger areas, spin and drag chute ignitors or cartridges, armament firing zones, hot brakes, engine starting cartridges, APU exhaust ports, flare tube outlets, chaff dispensing units, etc. These areas are depicted as a shaded area or with broken lines.

10.3.4 Fuel system (internal hazards). Illustrations and information for fuel systems, including fuel tanks, that are internally hazardous such as interconnecting lines with fuel tanks, etc. (see Figure 2).

10.3.5 Composite material hazards. Illustrations and information for areas containing composite materials and types (organic, inorganic or both) which would create additional hazards in a fire. This information includes burn potential flash points of the composite materials and any environmental risks. These areas are depicted as a shaded area.

10.3.6 Aircraft dimensions. Illustrations and information for aircraft dimensions with landing gear in down position, i.e. height, width, and length. This information includes interior cubic footage to determine fire retardant agent usage and amount (see Figures 1 and 5).

10.3.7 Cockpit or flight deck. Illustrations and information for the cockpit or flight deck including controls for engine and APU shutdown (see Figure 4).

10.3.8 Cabin layout. Illustrations and information for cabin layout, crewmember and passenger configurations, capacity and any possible locations outside the normal seating arrangements, i.e. galley, latrine, equipment, and maintenance areas or bays, etc. (see Figure 5).

10.3.9 Escape locations. Illustrations and information for exterior and interior detailed views and procedures for all entry doors, ramps, sliding windows, escape hatches, and any escape ropes and ladders associated with the above (see Figure 2).

10.3.10 Escape and ejection systems. Illustrations and information for escape and ejection systems employing pyrotechnics and their associated hazards. This information includes the safeing of such systems and required disconnection (e.g. oxygen and communication leads, etc.) enabling successful aircrew extraction and rescue (see Figure 6).

Block 10, Preparation Instructions (Continued)

10.3.11 Restraint devices. Illustrations and information for seats employing restraint devices and procedures for releasing occupants from the seats, including positioning levers, i.e. inertial reel control, vertical, horizontal, tilt, and pedestal controls for shifting the seat forward or aft (see Figure 6).

10.3.12 Skin penetration points. Illustrations and information for skin penetration points and their dimensions for all potential fire areas. A broken line illustrates each area for skin penetration (see Figure 7).

10.3.13 Window cut-in areas. Illustrations and information for locations and dimensions of cut-in areas around all aircraft windows and their internal operation, if applicable; i.e. sliding open with associated controls, etc. A broken line illustrates each area for cut-ins (see Figure 2).

10.3.14 Flotation equipment. Illustrations and information for the controls, locations and use of flotation equipment deployment systems and any associated hazards during deployment. This information includes location and procedures for escape for overhead openings and hatch openings requiring ropes or ladders after deployment.

10.3.15 Fire extinguishers. Illustrations and information for fire extinguisher locations, capacities, and types of extinguishing agents.

10.3.16 Engine fire bottles. Illustrations and information for engine fire bottle (if any) locations, capacities and types of extinguishing agents.

10.3.17 Oxygen systems. Illustrations and information for locations, capacities and number of oxygen regulators, shutoff valves, and cylinders or bottles in the system.

10.3.18 On Board Inert Gas Generating System (OBIGGS). Illustrations and information for any OBIGGS, as well as locations and capacities of nitrogen cylinders, and location of panel switches that control these systems.

10.3.19 Hydraulics. Illustrations and information for locations and capacities of hydraulic fluid reservoirs and lines.

10.3.20 Hazardous materials. Illustrations and information for the material, health hazard, first aid treatment, fire hazard, location, and amount.

10.4 Tools. Tools required for fire protection and emergency rescue for the system. If any tools must be locally manufactured, this information includes complete instructions for fabrication of the tool such as parts required, procedures for fabrication and treating, special processes, etc. (see Figure 8)

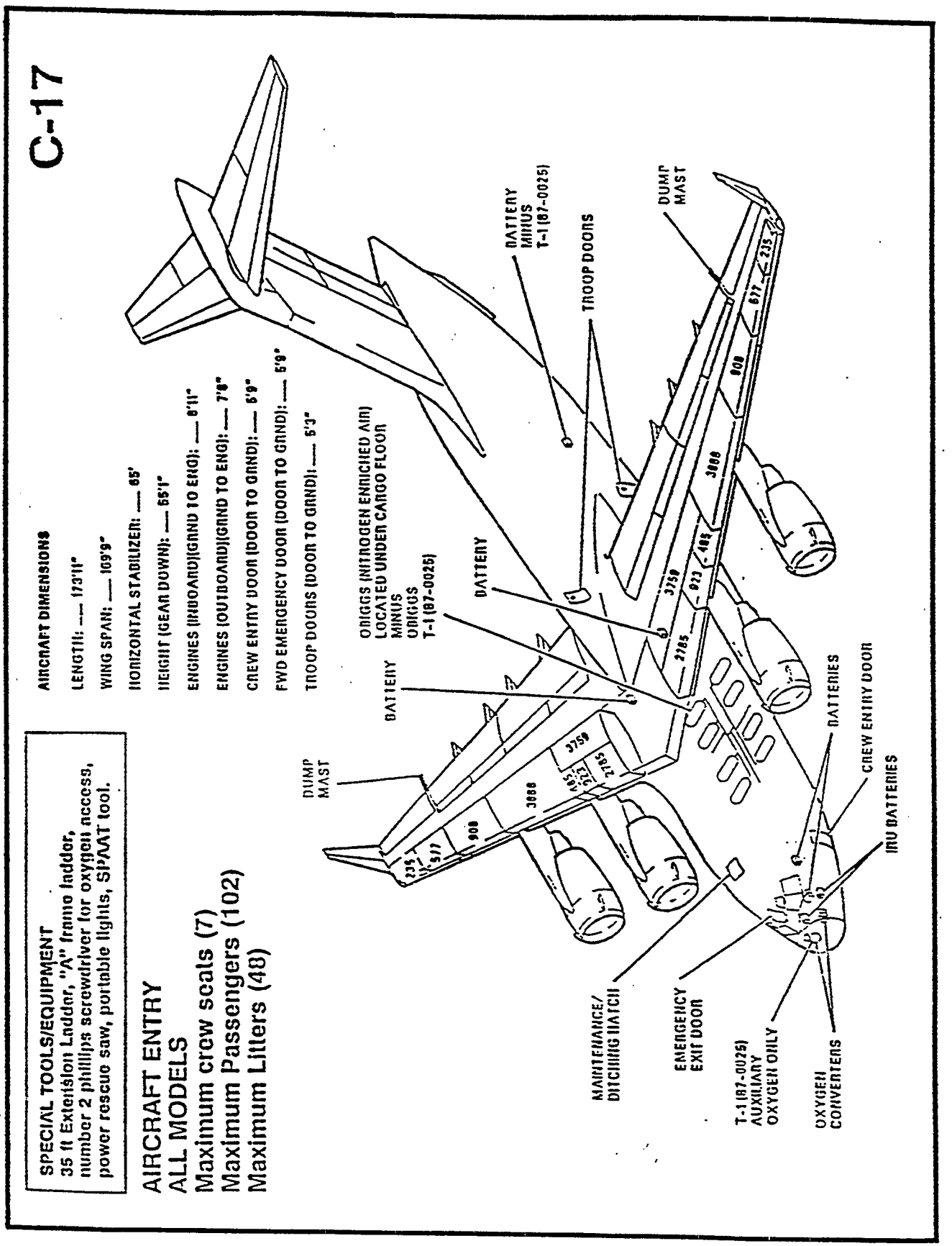

FIGURE 1. Example of list of special tools, number of personnell, entries, hatches, OBIGGS, and aircraft dimensions.

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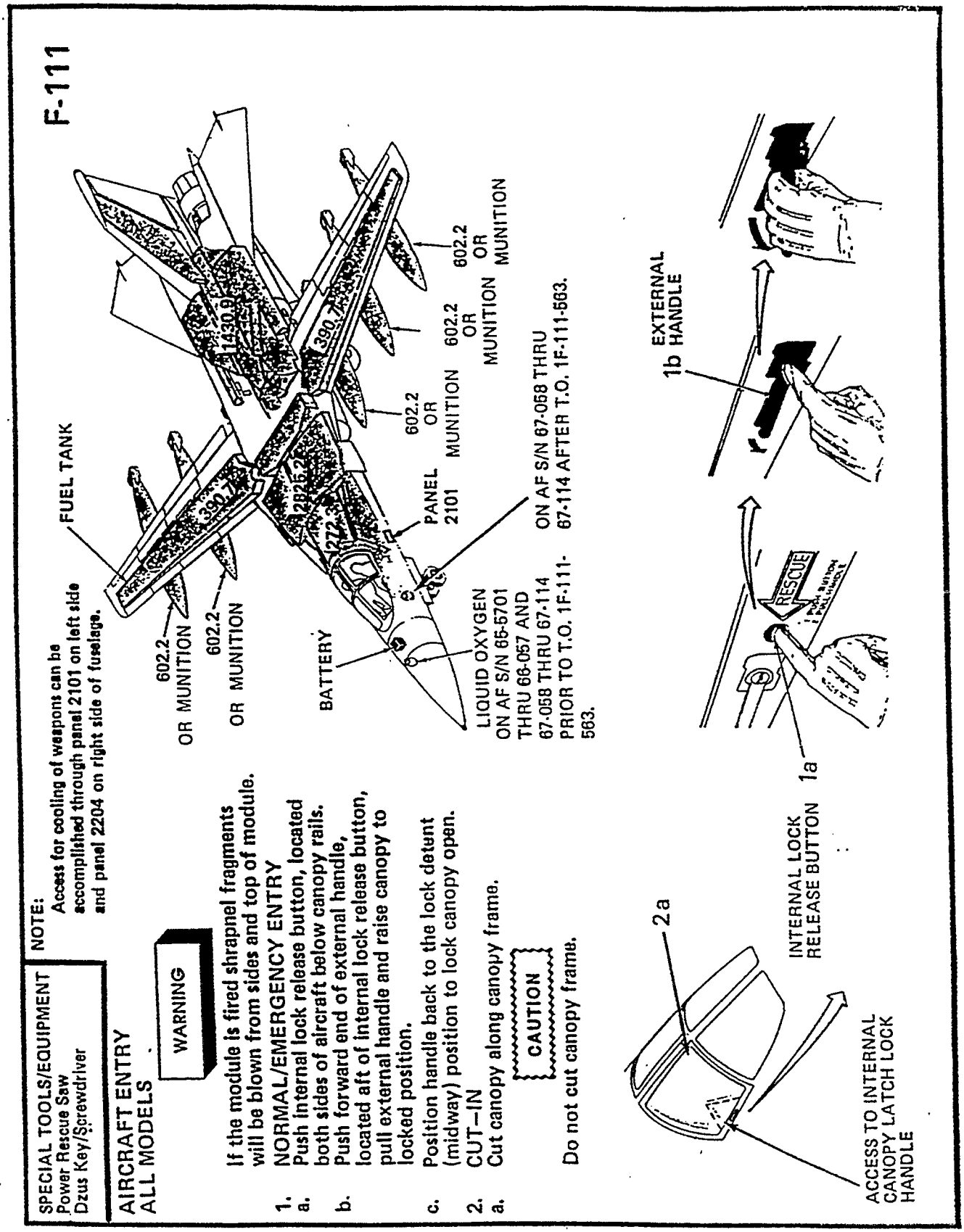

FIGURE 2. Example of general view depicting fuel, oxygen, armament, batteries, list of special tools, normal and emergency entry, cut-in procedures and miscellaneous aircraft information.

Block 10, Preparation Instructions (Continued)

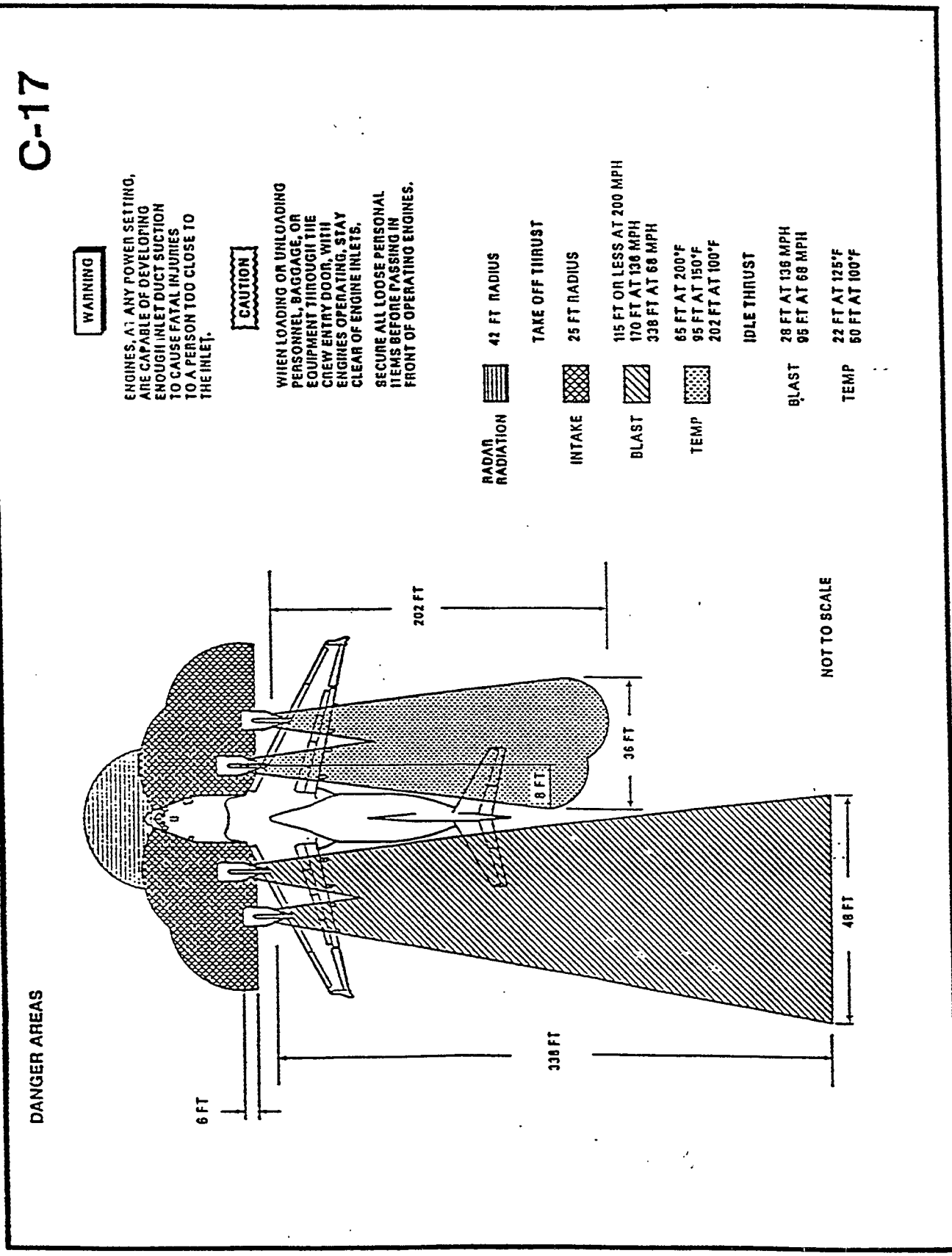

FIGURE 3. Example of external hazards.

Block 10, Preparation Instructions (Continued)

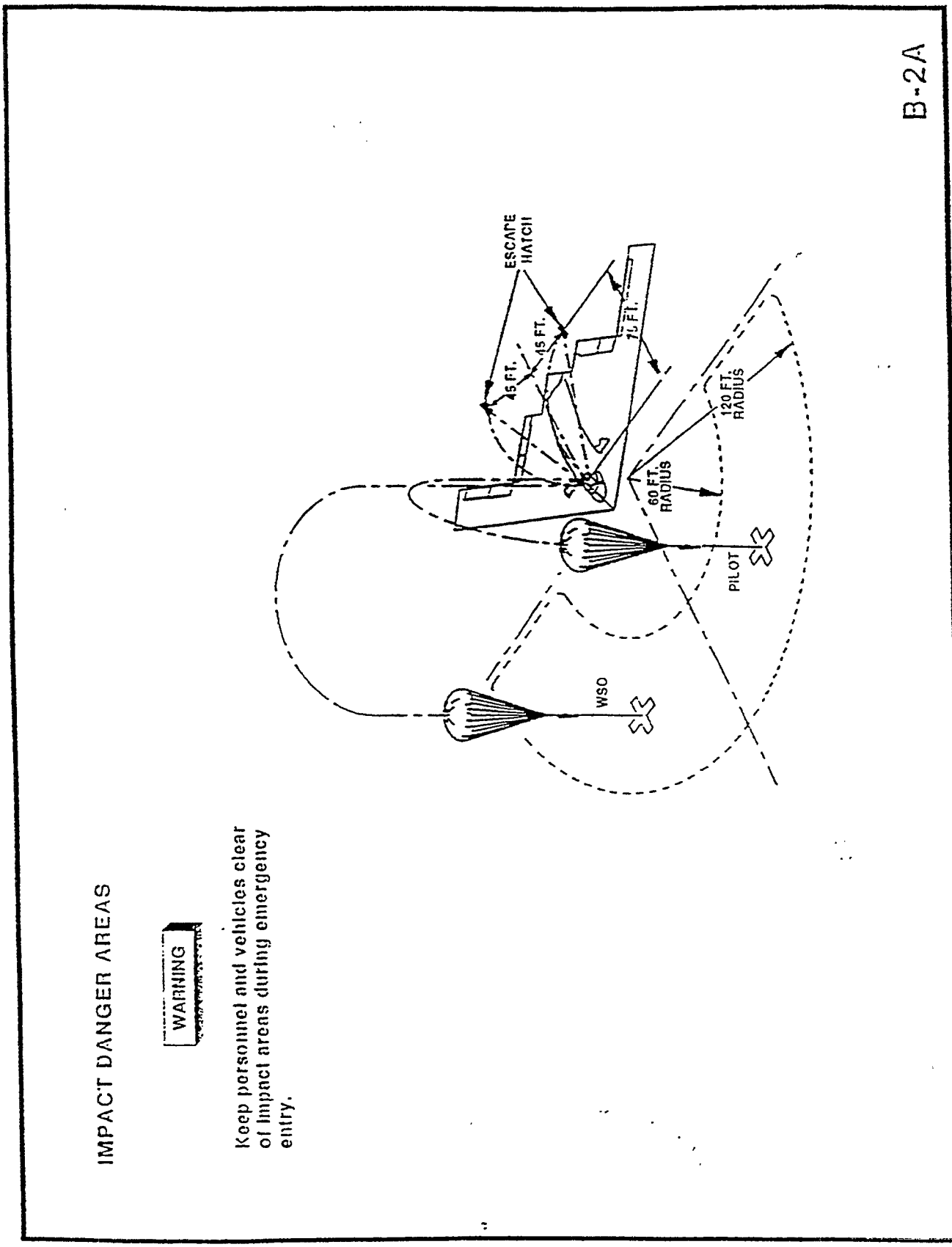

FIGURE 3. Example of external hazards - Continued.

Block 10, Preparation Instructions (Continued)

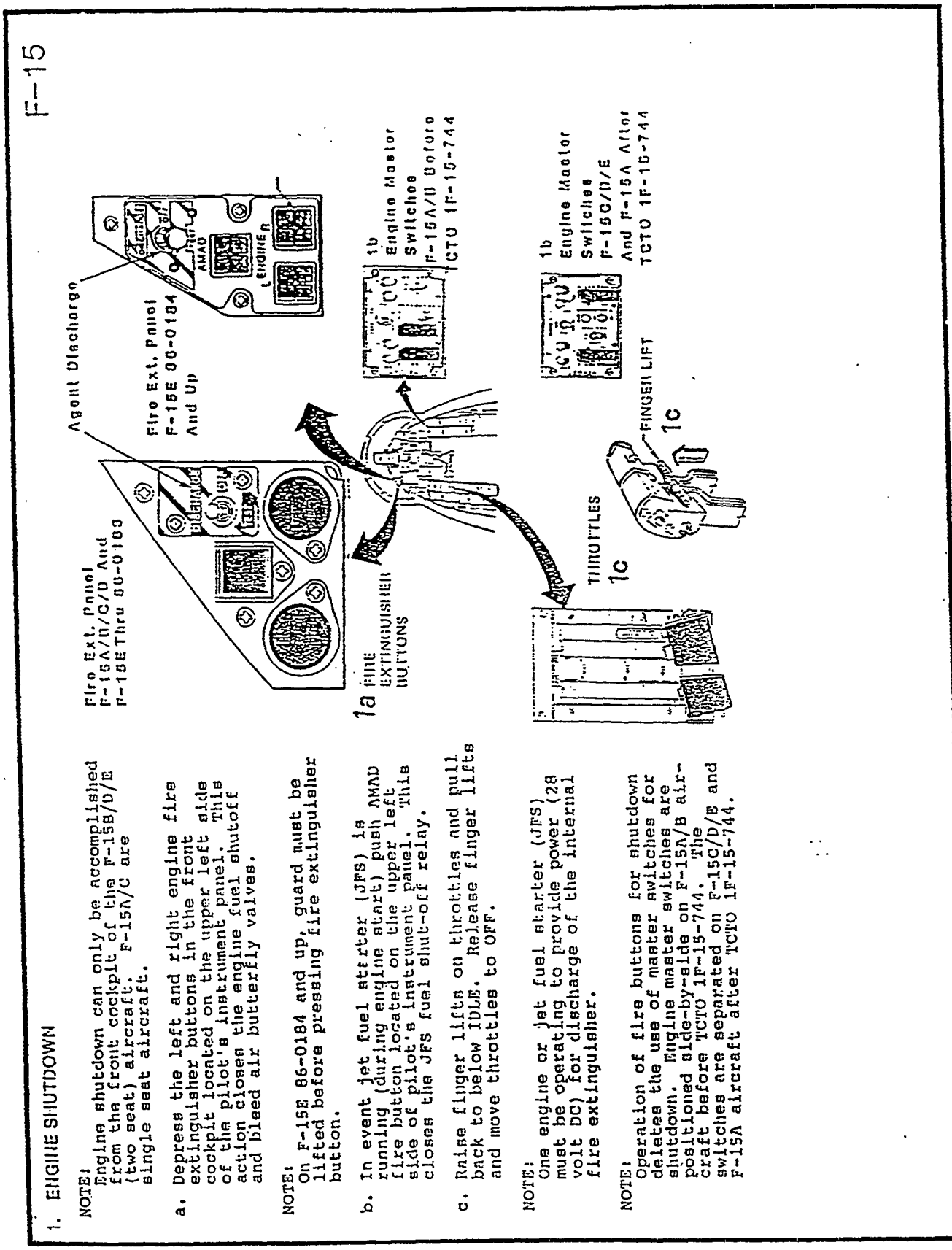

FIGURE 4. Example of engine shutdown procedures.

Block 10, Preparation Instructions (Continued)

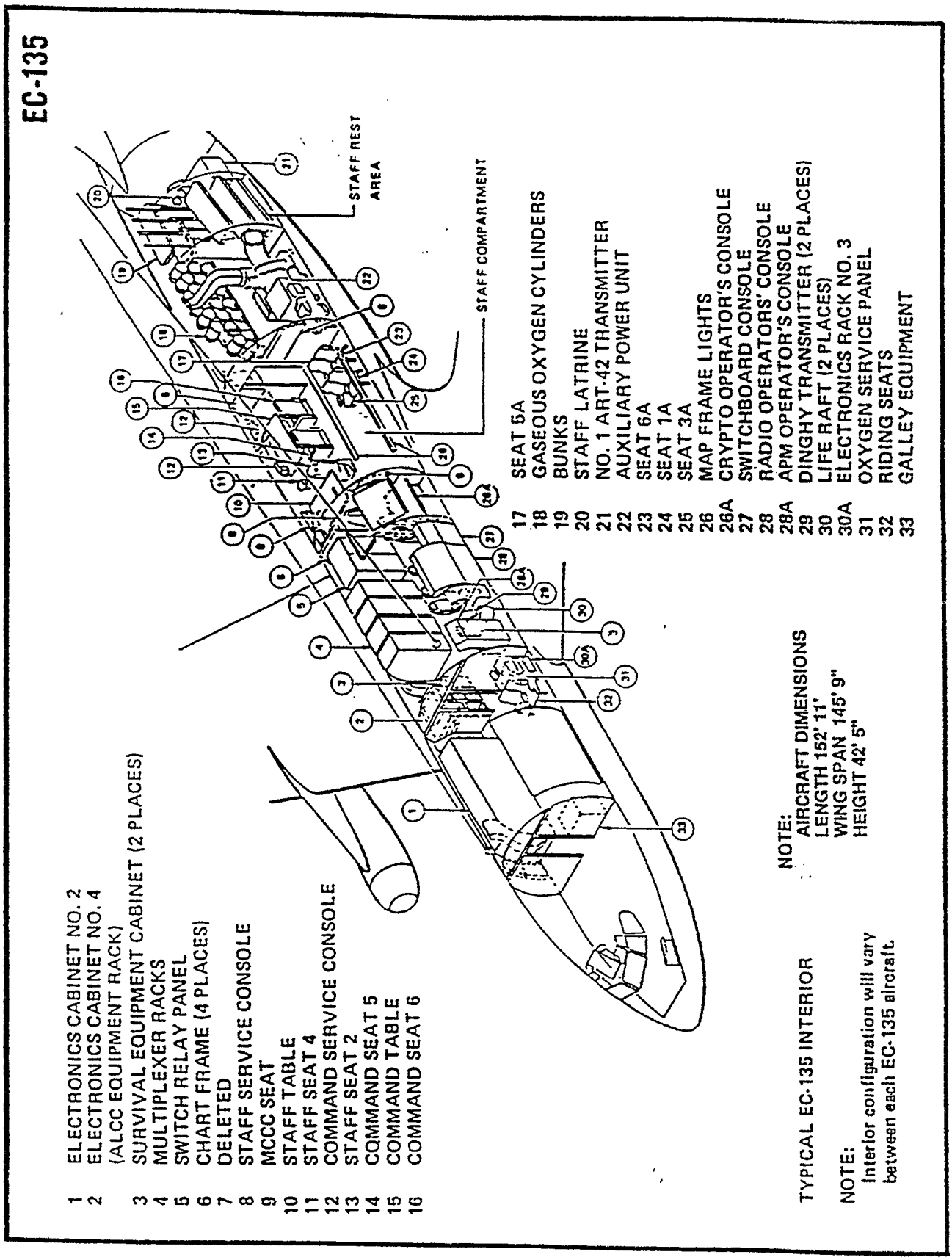

FIGURE 5. Example of cabin arrangement and aircraft dimensions.

Block 10, Preparation Instructions (Continued)

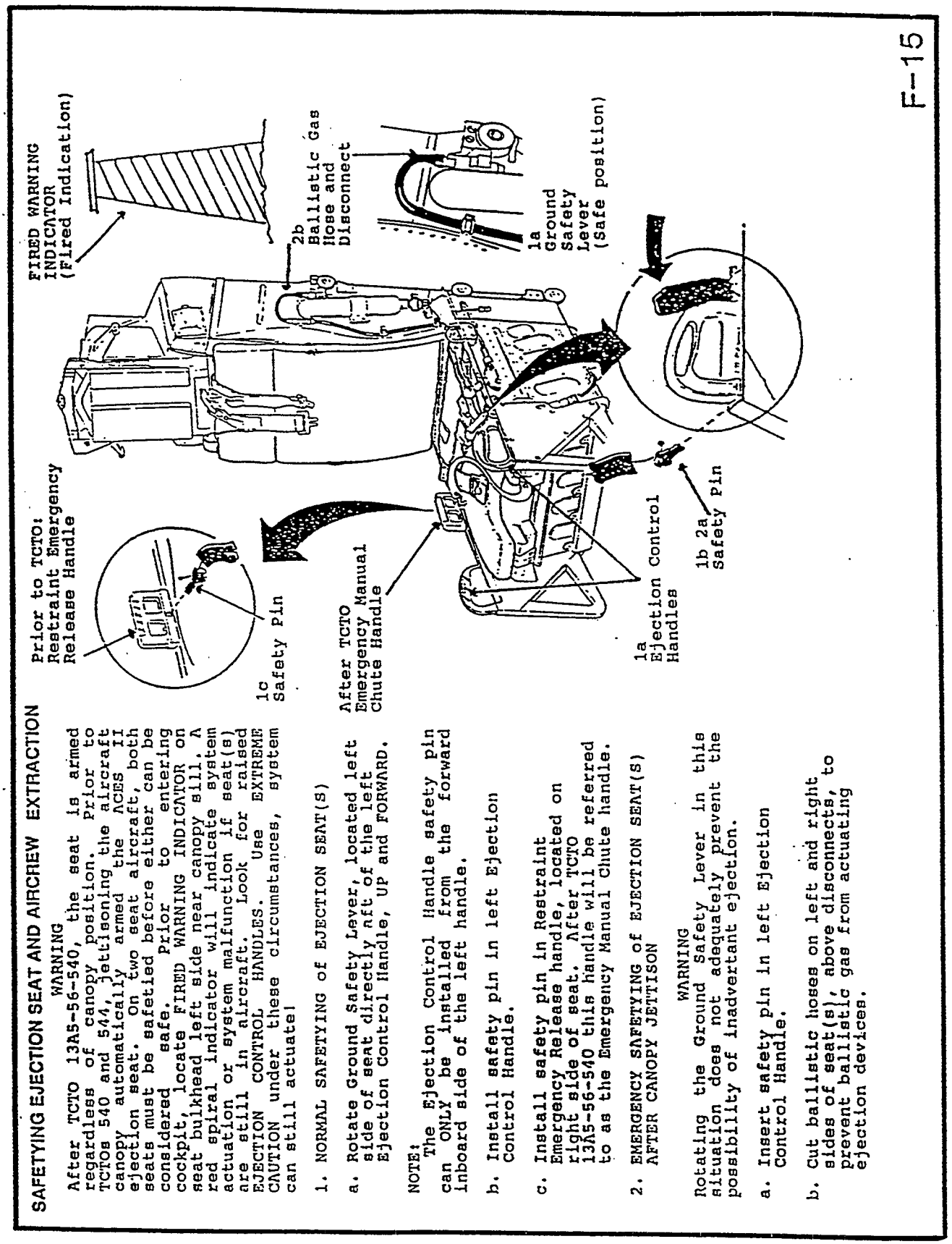

FIGURE 6. Example of safeing ejection seat and restraint systems.

Block 10, Preparation Instructions (Continued)

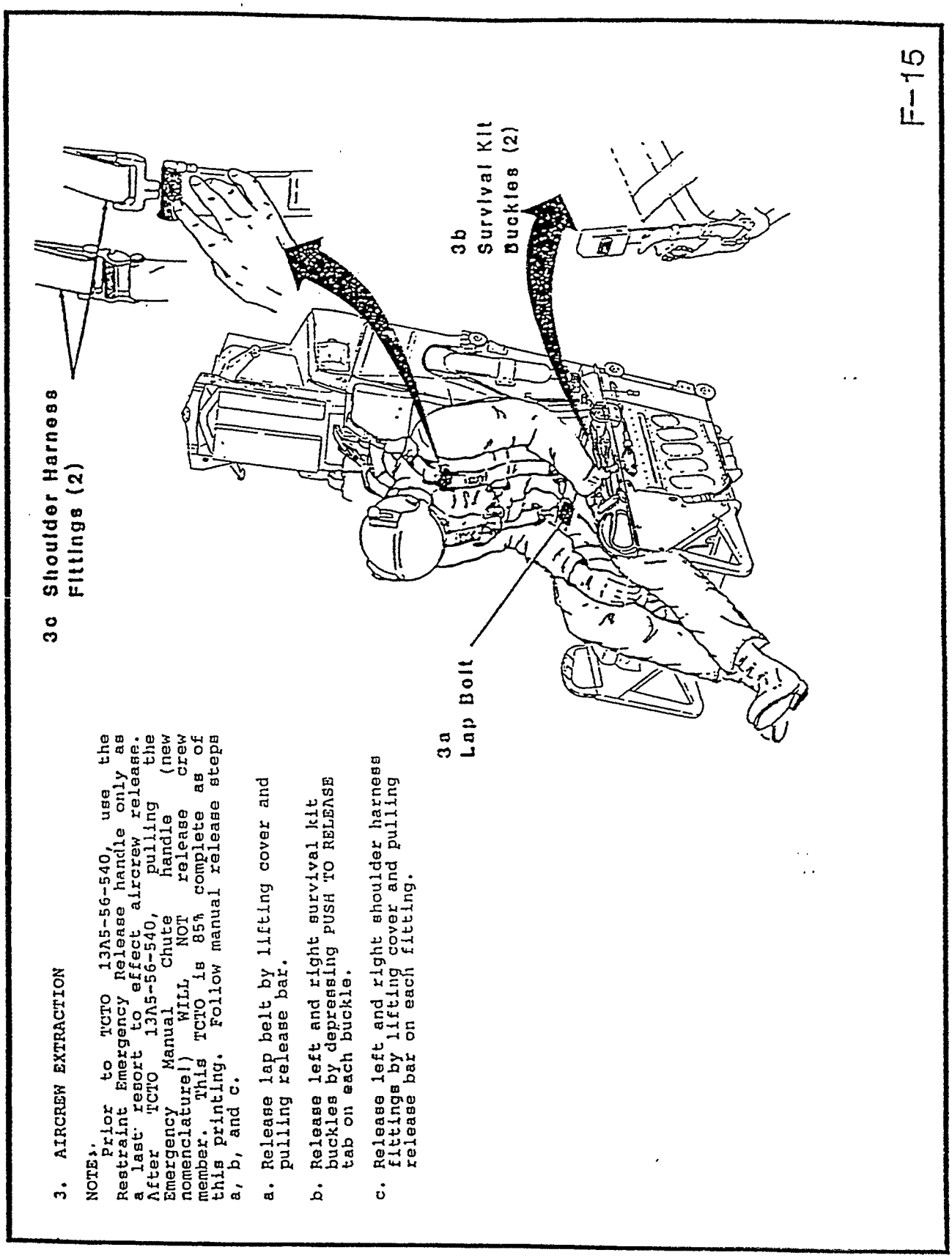

FIGURE 6. Example of safeing ejection seat and restraint systems - Continued.

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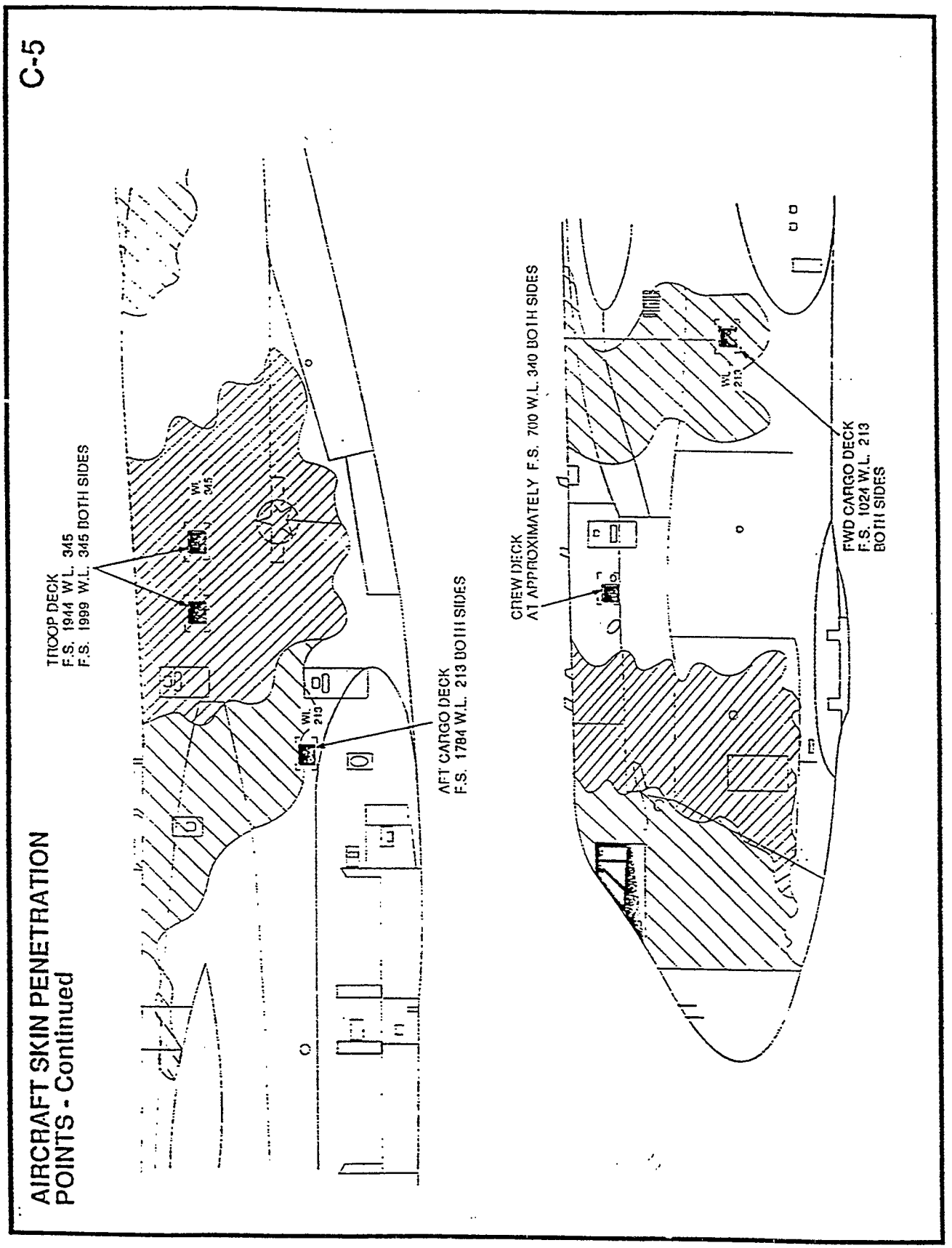


FIGURE 7. Example of skin penetration points.

Block 10, Preparation Instructions (Continued)

F-117A

SPECIAL TOOLS/EQUIPMENT

Target quickie portable gas saw or equivalent
Rescue ladder/left side
Rescue ladder/right side
1/2 inch drive speed handle with 1/2 inch socket
6 inch X 1/2 inch extension
Canopy unlocking tool
Kendrick extraction kit
Hurst rescue tool
Dearming tool, tube cutter AT501C or equivalent
Modified bayonet nozzle
Spaat tool

NOTE:

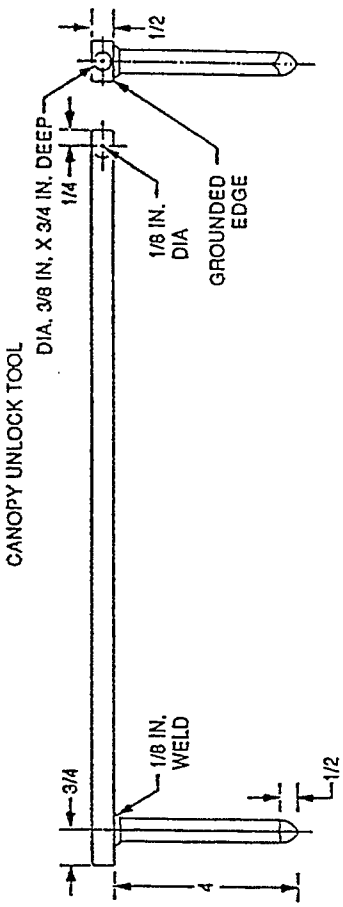
Electric drills or pneumatic tools will not be used to manually raise the canopy.

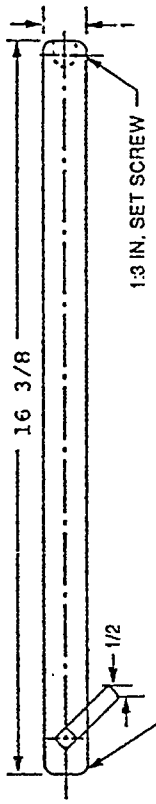
NOTE:

Primary communication hook-up is made by using the connection located in the nose gear compartment.

NOTE:

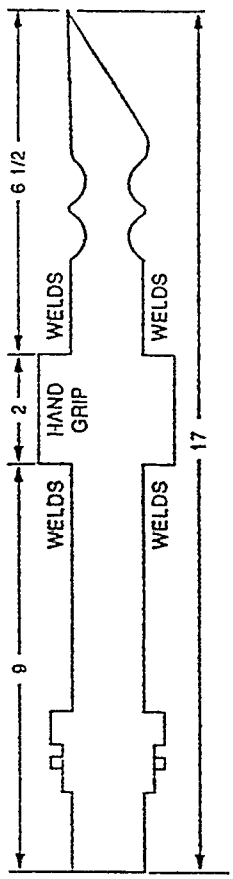
The F-117A does not utilize a canopy strut or prop for the aircraft canopy.





NOTE: ALL DIMENSIONS ARE IN INCHES.

MODIFIED BAYONET TOOL



NOTE: ALL DIMENSIONS ARE IN INCHES.

FIGURE 8. Example of special tools.