WELCOME TO TECHNICAL ORDER 00-105E-9, 1 FEBRUARY 2006, REVISION 11.

THIS IS SEGMENT 6 COVERING CHAPTER 6 FROM THE C-21 TO THE C-40.

TO NAVIGATE

CLICK ON THE
BOOKMARKS AND
CLICK ON THE (+)
SYMBOLS, THEN
CLICK ON SUBJECT
LINKS TO GO TO
SPECIFIC VIEWS
IN THIS SEGMENT.



CONTINUE

NOTICE

CONTACT

TO GO DIRECTLY TO THE TECHNICAL ORDER, CLICK ON THE CONTINUE BUTTON.

TO SEE THE SEGMENT INFORMATION CHANGE NOTICE, CLICK ON THE <u>NOTICE</u> BUTTON.



TO CONTACT THE TECHNICAL CONTENT MANAGER, CLICK ON THE CONTACT BUTTON.

TECHNICAL ORDER 00-105E-9 TECHNICAL CONTENT MANAGER



WRITTEN CORRESPONDENCE:

HQ AFCESA/CEXF

ATTN: Fire and Emergency Services Egress Manager

139 Barnes Drive Suite 1

Tyndall AFB, Florida 32403-5319

E-MAIL: HQAFCESA.CEXF@tyndall.af.mil

INTERNET: HQ AFCESA Fire and Emergency Services PUBLIC WEB PAGE:

http://www.afcesa.af.mil/CEX/cexf/index.asp

Safety Supplements: http://www.afcesa.af.mil/CEX/cexf/_firemgt

PHONE: (850) 283-6150

DSN 523-6150

FAX: (850) 283-6383

DSN 523-6383

For technical order improvements, correcting procedures, and other inquiries, please use the above media most convenient.

SEGMENT 6 INFORMATION CHANGE NOTICE

This page is provided to notifiy the user of any informational changes made to Technical Order 00-105E-9 in this Segment and the current Revision. Informational changes will be referenced in the Adobe Reader's Bookmark tool as a designator symbol illustrated as a <[C]> for quick reference to the right of the affected aircraft. The user shall insure the most current information contained in this TO is used for his operation. Retaining out of date rescue information can negatively affect the user's operability and outcome of emergencies. If the user prints out pages his unit requires, the user shall print the affected page(s), remove and destroy the existing page(s), and insert the newly printed page(s) in the binder provided for that purpose. A Master of this TO shall be retained in the unit's library for reference, future printing requirements and inspections.

<u>CHAPTER</u> <u>AIRCRAFT</u> <u>PAGE</u> <u>EXPLANATION OF CHANGE</u>

None.

NOTE

Chapter 6 contains emergency rescue and mishap response information for the following aircraft:

C-5
C-7
(V)C-9A/C
C-12C/D/F
C-12J
C-17A
C-18
C-18D
C-20
C-20H
C-21
C-22B
C-23A
C-26
C-27A
C-32A
C-37A
C-38A
C-40
C-130
C-130J
C-135
NC-135W
RC-135S
RC-135U
RC-135V/W
TC-135S
TC-135W
WC-135C
WC-135W
(V)C-137
C-141
NC-141A
C-212
KC-10A

AIRCRAFT ENTRY

- 1. NORMAL ENTRY
- a. Lift handle and rotate handle clockwise to release upper half of door.
- b. Raise upper door.
- c. Rotate lower door handle, located in interior center of lower door, to the open position.
- d. Release safety catch, located on left end of lower door, and gently lower door to full open position.
- 2. EMERGENCY ENTRY

NOTE:

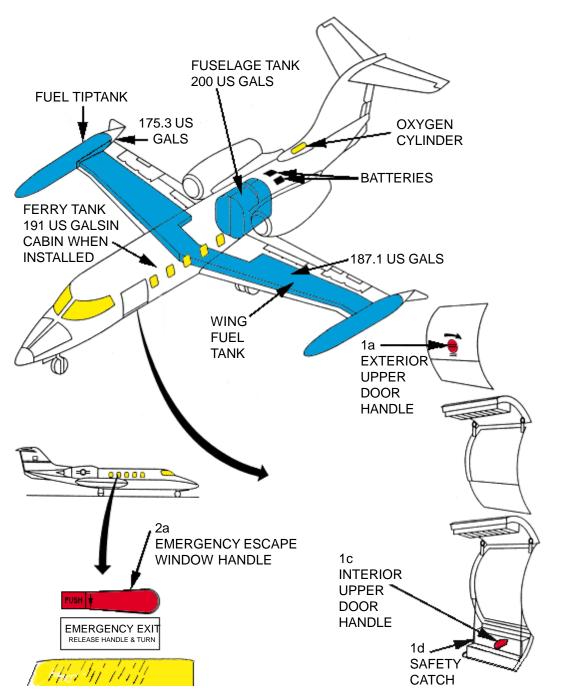
Emergency escape window is the fourth window on the right side.

- a. Depress button marked PUSH and rotate handle down.
- b. Push the window into cabin.
- 3. CUT-IN

NOTE:

Do not attempt to chop windshield.

a. Cut around side windows as required.

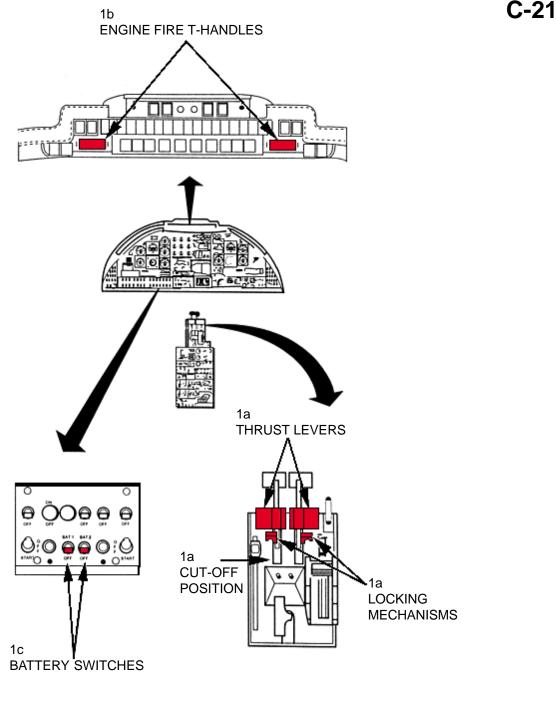


ENGINE SHUTDOWN AND AIRCREW EXTRACTION

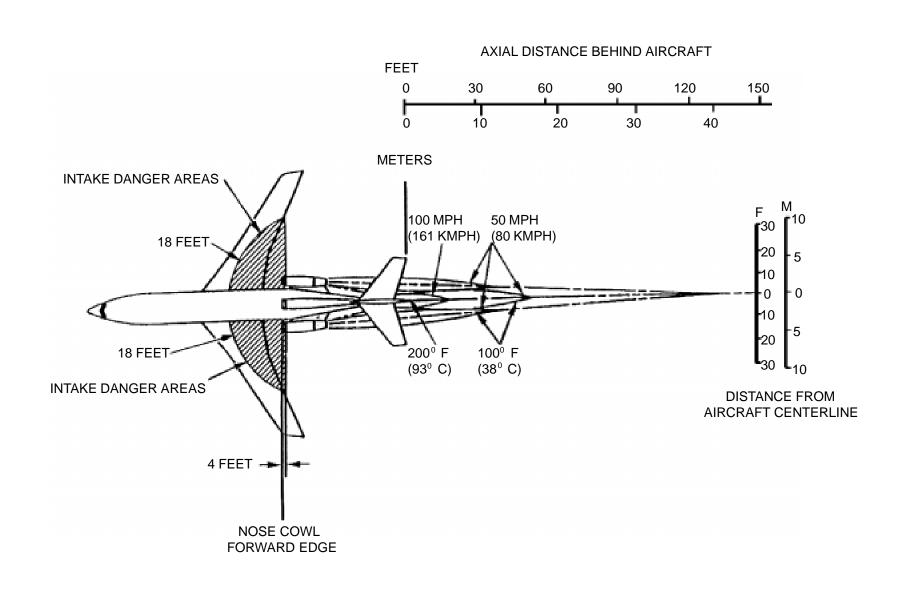
- 1. ENGINE SHUTDOWN
- a. Simultaneously lift locking mechanism and pull Thrust Levers AFT into the cut-off position.
- b. Pull Engine Fire T-Handles, located on upper portion of pilot's instrument panel.
- c. Place battery (2) switches, located on lower left of pilot's instrument panel, to the OFF position.
- 2. AIRCREW EXTRACTION
- a. Unlatch lap belts and remove shoulder harness from crewmember(s).

NOTE:

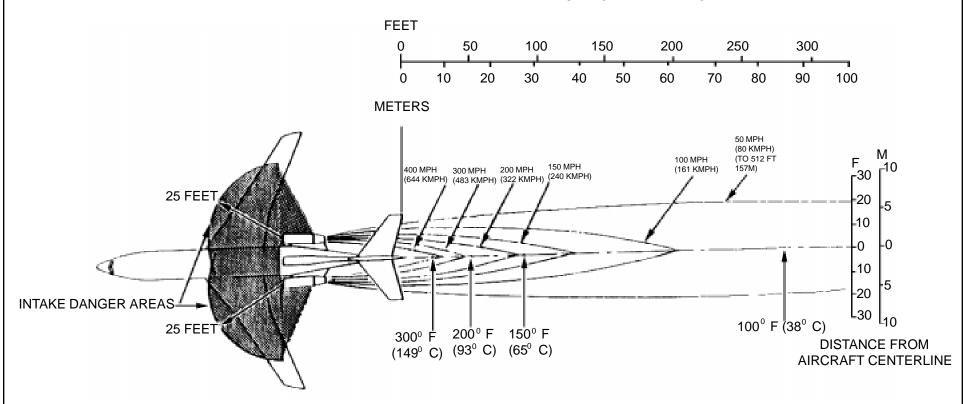
Passenger seats are equipped with lap belts only.



JT8D TURBOFAN ENGINE HAZARD AREAS AT IDLE THRUST



AXIAL DISTANCE BEHIND AIRCRAFT



AIRCRAFT DANGER AREAS-Continued

WHEEL AND/OR BRAKE FIRES:

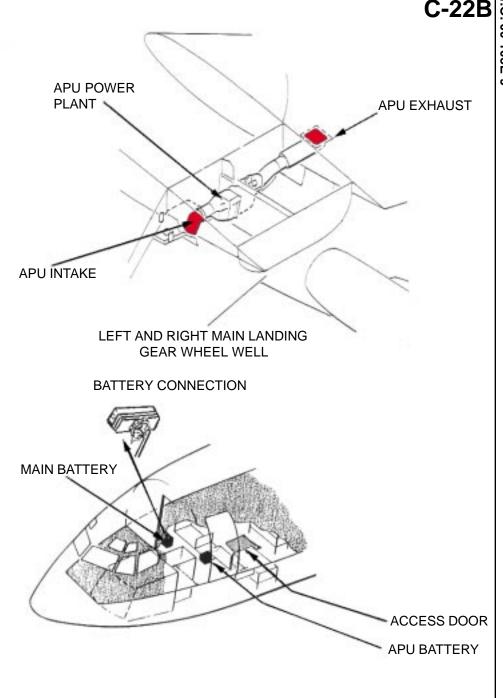
Wheels are equipped with fusible plugs designed to melt and deflate the tire when the temperature is excessive. Use of BCF (halon) is preferred if tires are pressurized. Dry chemical, fog, or foam are acceptable. If all tires are deflated, any fire extinguishing agent may be used. Cool down time for hot brakes is 40 minutes minimum.



Approach landing gear from forward or aft of wheel when fighting a wheel fire as wheels and tires may explode.

NOTE:

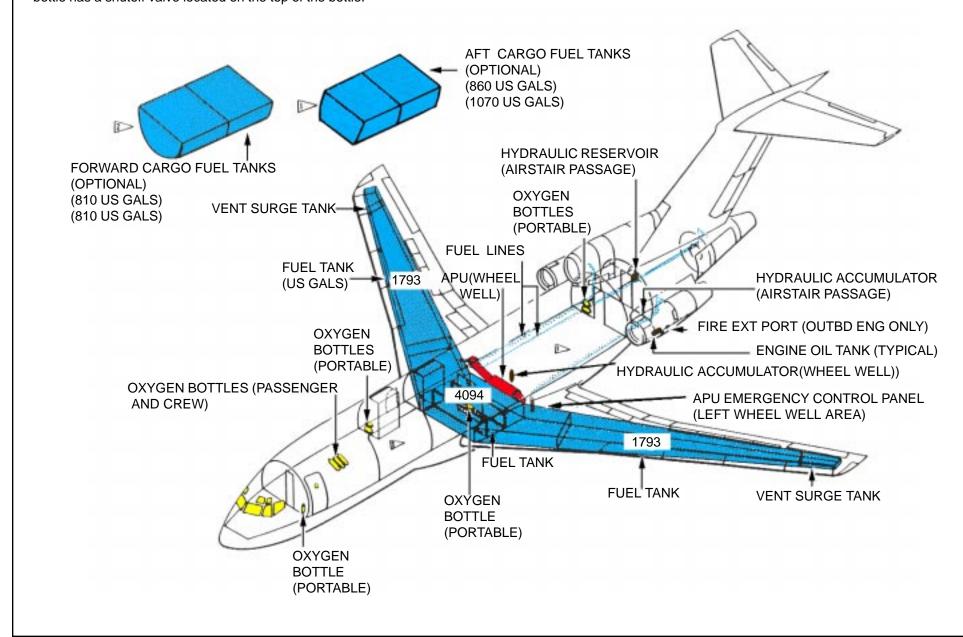
- Radar systems are not normally operated during ground operations of the aircraft. Be aware that radar may be running during an emergency, but does not pose a threat if exposure is minimal.
- The APU is located between the left and right wheel wells. The intake is in the LH wheel well and the exhaust is in the top rear wing root area of the right wing.
- The main and APU batteries are located in the pressurized electronic equipment compartment access door. The battery is equipped with a 115 degree F. temperature switch. Disconnect the battery cable by loosening the hand knob and lifting the plug off of the terminals.



AIRCRAFT FLAMMABLE MATERIAL

C-22B T.O. 00-105E-9

Crew and passenger oxygen bottles are located in the forward baggage compartment just aft of the door. Each bottle has a shutoff valve located on the top of the bottle.



C-22B.5

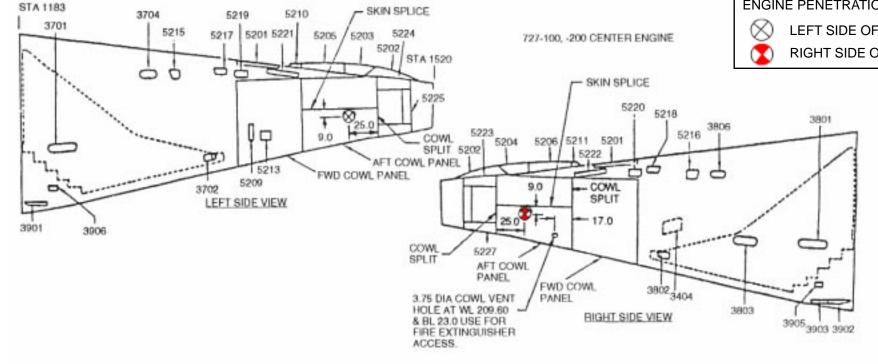
NOTE:

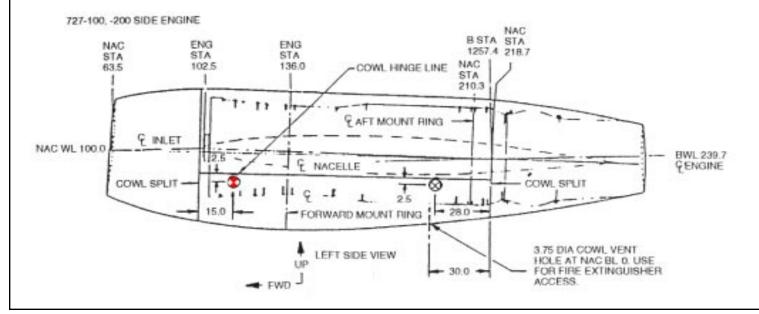
200F)

DOOR

C-22B.8







AIRCRAFT ENTRY

1. NORMAL ENTRY



If Forward Entry Door is used for rescue, passenger escape chute-slide will be actuated if not disconnected from inside.

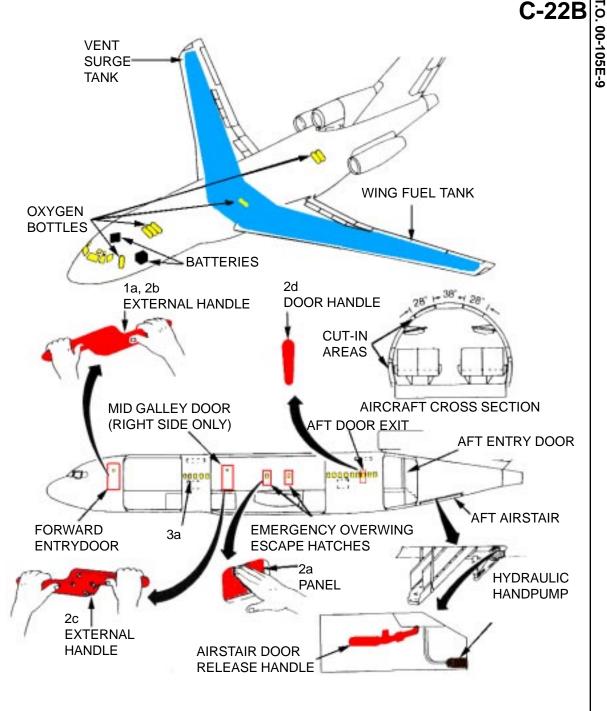
- a. RIGHT FORWARD ENTRY DOOR Pull handle outward, rotate clockwise and pull door outward to open position.
- 2. EMERGENCY ENTRY
- a. OVERWING ESCAPE HATCHES Push panel in, located top center of hatches, and push hatches inward and up.
- FORWARD ENTRY DOOR Pull external handle, located on entry door, outward; rotate clockwise and pull door out to open position.
- c. MID GALLEY DOOR Pull external handle, located on galley door right forward side outward; rotate counterclockwise and pull door out to open position.
- d. AFT EXIT DOORS Pull lower end of handle, located top center of door left side of fuselage, outward; rotate clock wise and pull door outward. (Turn handle counterclockwise on doors located on right ride of fuselage.)
- e. AIRSTAIR ENTRY DOOR Depress latch on access door, located right side aft fuselage, and pull handle down to release stairway. (Stairway can jack aircraft up for passen-

ger escape in a no-gear situation.)

- f. AFT ENTRY DOOR Rotate handle, located on aft entry door, clockwise and push door inward.
- 3. CUT-IN
- a. Cut tenth window aft from crew compartment and fifth window forward from tail section as last resort.

NOTE:

Oxygen, rafts, flashlights, and fire extinguishers are located in overhead compartments.



ENGINE AND APU SHUTDOWN

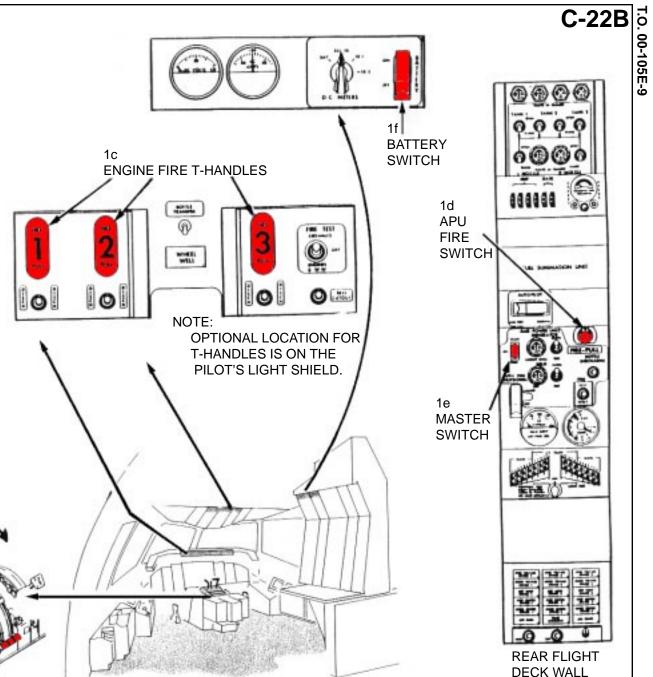
1. ENGINE AND APU SHUTDOWN

C-22B.10

- Retard throttles or thrust levers, located on pilot's center console, to the CLOSED position.
- Restart start levers, located on pilot's center console, to IDLE CUTOFF position.
- In case of engine fire, pull engine fire T-handle, located on center ceiling control panel or on pilot's light shield, for appropriate engine. Activate discharge switches as necessary.
- In case of APU fire, pull APU fire switch located on rear flight deck wall. Activate discharge switch as necessary.
- Place Master Switch, located on rear flight deck wall, down to OFF position.
- Locate Battery Switch, located on upper left flight engineer's panel, lift switch guard up and place switch in OFF position.

1a **THRUST LEVERS**

ENGINE START LEVERS CUTOFF POSITION



AIRCREW EXTRACTION

2. AIRCREW EXTRACTION

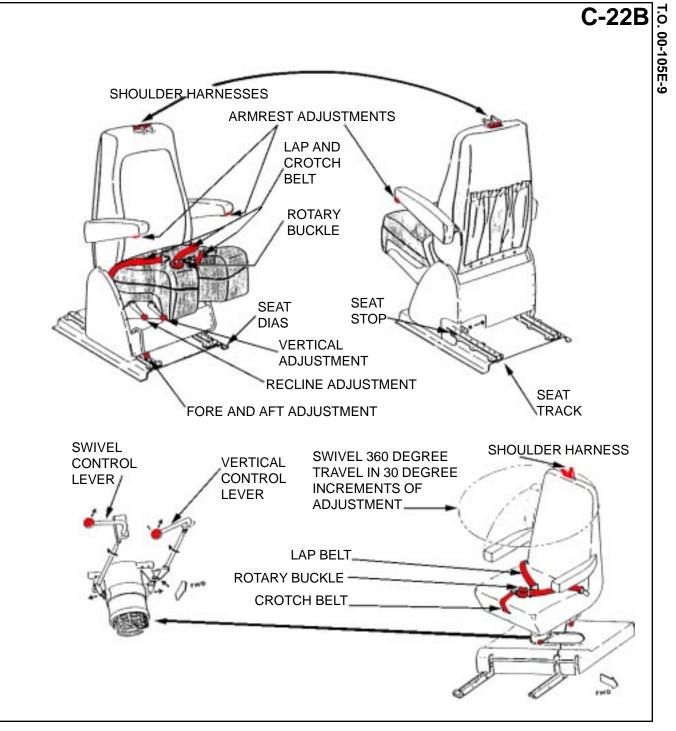
NOTE:

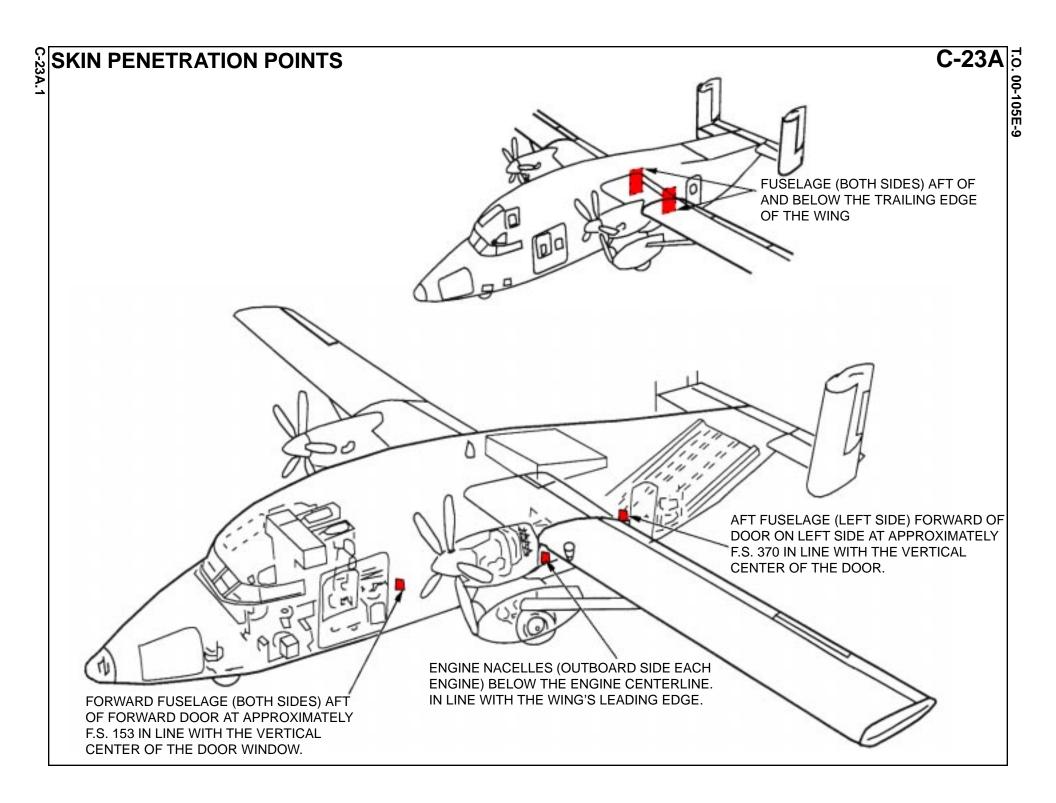
If seat tracks are not damaged during crash landing, use adjustable seat control handles to retract seats to aft position. Third crewmember may have to be extracted first to make room for the pilot and co-pilot seat adjustments.

- a. Unlatch lap belt and remove shoulder harness from pilot and co-pilot by rotating the rotary buckle.
- b. For easier extraction, use seat adjustments for fore and aft, vertical, recline, and inside armrest.
- Unlatch lap belt and remove shoulder harness from flight engineer or third crewmember by rotating the rotary buckle.
- d. For easier extraction, use seat adjustments for fore and aft, vertical, and swivel for facing positions. Depress swivel seat control handle and rotate seat clockwise so that crewmember faces aft.
- Passenger seats are equipped with lap belts only.

NOTE:

Co-pilot's seat controls located opposite.





AIRCRAFT ENTRY

1. NORMAL ENTRY

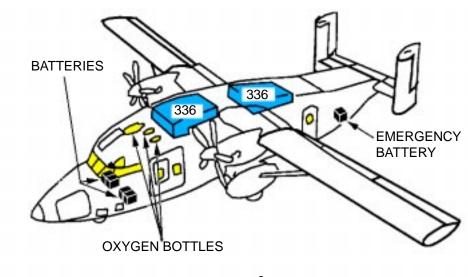
- a. Turn handle on main cabin entry door clockwise and pull to open.
- b. Turn handle on forward cargo loading door clockwise and pull to open.

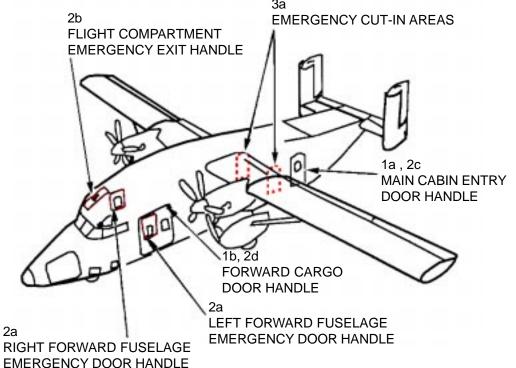
2. EMERGENCY ENTRY

- a. Turn handle on any of two forward emergency exits left and right clockwise and pull to open.
- b. Turn handle on flight compartment emergency exit clockwise and pull to jettison.
- c. Turn handle on main cabin entry door clockwise and pull to open.
- d. Turn handle on forward cargo loading door clockwise and pull to open.

3. CUT-IN

a. Cut-in area each fuselage side aft of wing.





ENGINE SHUTDOWN AND AIRCREW EXTRACTION

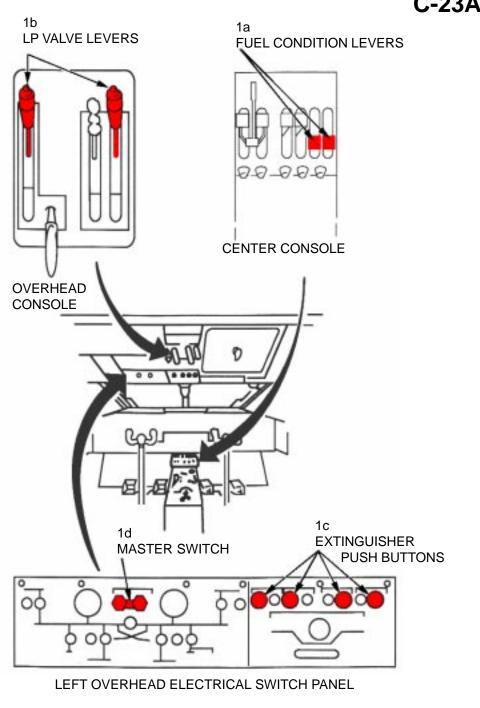
- 1. ENGINE SHUTDOWN
- Retard fuel levers, located on center console, to OFF position.
- b. Retard LP valve levers, located in overhead console, to SHUT position.
- c. If fire buttons are illuminated or if there is evidence of fire in the vicinity of the engines, actuate the Fire Extinguisher Push Buttons located in the center overhead engine services panel.
- d. Place electrical master switch, located left overhead electrical switch panel, to OFF position.

2. AIRCREW EXTRACTION

a. Unlatch lap belts and remove shoulder harness from crewmembers.

NOTE:

Passenger seats are equipped with lap belts only.



AIRCRAFT HAZARDS

NOTE:

The C-26 is a joint service aircraft used by the USAF, US Army, US Navy, and State Department for drug interdiction.

ALCOHOL-WATER (AWI) FLUID MIXTURE

The C-26 (SA 227-DC model) uses an alcohol-water mixture composition (CAWI system) with a quantity of 14 US gallons or 54 liters. The mixture is Methyl Alcohol 40% and water 60%. Prior to flight the CAWI tank will be full. The interconnected storage tanks are located between the fuselage lower skin and the wing belly panel. Common plumbing is routed through each wing leading edge to each engine.

WARNING

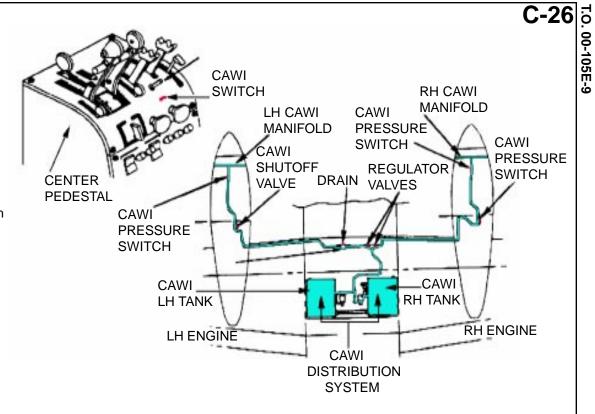
Methyl Alcohol (Methanol) is a violent poison and can not be made non-poisonous. In case of accidental contact, flush with water immediately. Methanol vapors are toxic and extremely flammable. Do not smoke, generate sparks, or expose Methanol to open flame.

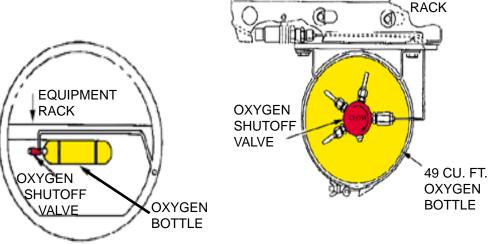
OXYGEN BOTTLE AND SHUTOFF VALVE LOCATION

The C-26 (SA 227-DC) contains one oxygen bottle located beneath the equipment rack aft of the aft cargo compartment bulkhead. Oxygen lines are routed to the pilot and co-pilot and along the right side of the fuselage to the passengers. A shut-off valve is located on each regulator.

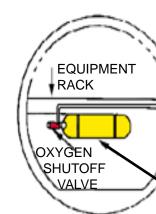
EQUIPMENT

RACK





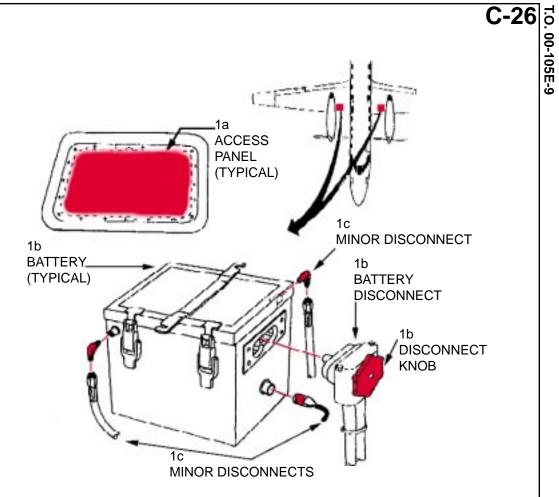
EQUIPMENT



NOTE:

Aircraft is equipped with two 24 volt 23 Ah Ni/Cd batteries.

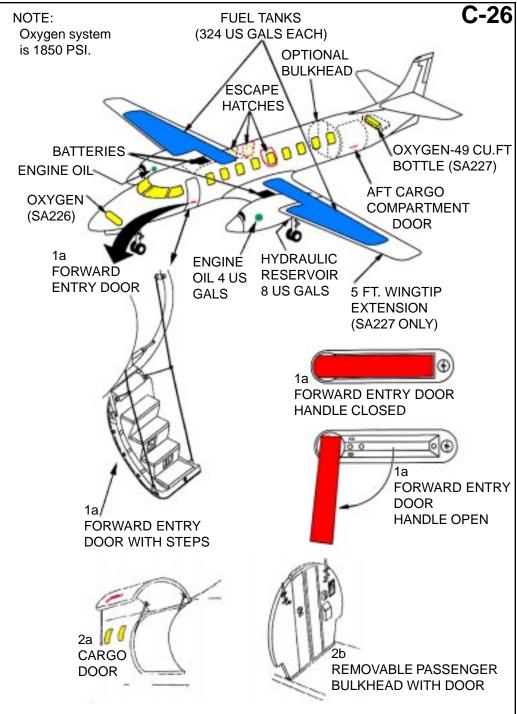
- a. Remove battery access panels from upper surface of left and right inboard wing.
- b. Disconnect main battery quick disconnect by turning battery disconnect knob counterclockwise.
- c. Disconnect minor battery quick disconnects by turning connectors counterclockwise.



6 Foot Ladder

AIRCRAFT ENTRY- SA226/227 MODELS

- 1. NORMAL/EMERGENCY ENTRY
- a. Push in on forward end of entry door handle. Door is located on forward left side of aircraft.
- b. Rotate entry door handle down, clockwise, to open.
- c. Pull out on door handle. (Door is hinged at the bottom and will rotate out from the top).
- 2. CARGO DOOR AND PASSENGER BULKHEAD
- a. The cargo door handle operates same as the forward entry door handle. Cargo door must be lifted up to open.
 Cargo door is located on aft left side of aircraft.
- b. Optional bulkhead separates passenger compartment and cargo compartment. The bulkhead may be removable and may contain a door. Can also be used as an emergency entry and exit.
- 3. CUT-IN
- a. Cut along window lines. There are no cut-in marks painted on the aircraft. The area 14 inches above and 3 inches below the window will offer the least resistance for forced entry.



EMERGENCY EXITS AND PERSONNEL EGRESS

1. EMERGENCY EXITS

NOTE:

Escape hatches (windows) cannot be opened from outside the aircraft. Two hatches are located on the overwing right side and one hatch is located on the overwing left side of aircraft. Do not use as an entry.

- a. Pull emergency handle, located above each emergency exit hatch window.
- b. Pull hatch inward and place to the side or discard outside. Hatch opening can now serve as an exit for passengers and an entry point for rescue team members.
- 2. PERSONNEL EGRESS

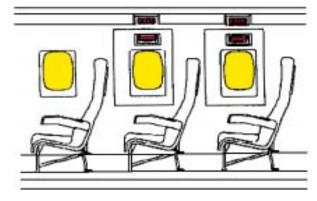
NOTE:

Although not recognized by the FAA as an emergency exit, the cargo door (which can be opened from inside the aircraft) is available as an emergency exit.

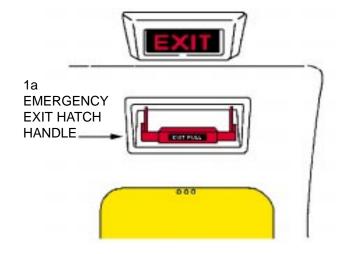
WARNING

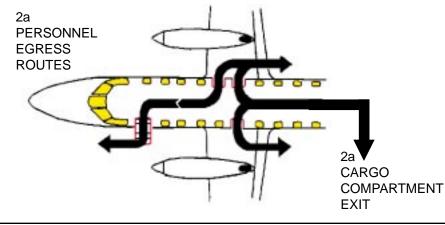
Do not use main entry door for emergency exit if left engine is still running. Personnel can walk into path of rotating propellers causing serious injury or death.

- a. Pesonnel can egress through main entry doorway, and three emergency exits over the wings.
- b. As an alternative, if time permits, remove the aft cargo compartment bulkhead or open cargo compartment door and open the cargo doorway and exit. Cargo/baggage may have to moved out of the way to exit.

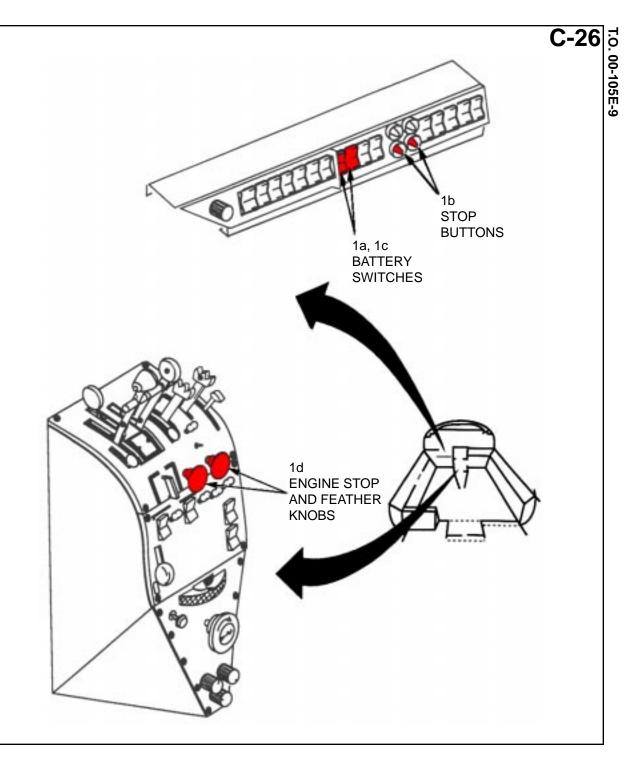


EMERGENCY EXIT HATCH WINDOWS (RT SIDE VIEW)





- Ensure at least one battery switch is ON (forward position). Battery switches are located straight forward of pilot's control column.
- b. Push stop buttons, located below left instrument panel. (Approx. 5 inches to right of battery switches.)
- c. Place both battery switches to OFF (center) position.
- d. Pull both engine stop and feather knobs, located on center pedestal just below engine controls, full aft. Controls are red.



CABIN CONFIGURATION AND AIRCREW EXTRACTION

- 1. CABIN CONFIGURATION
- a. C-26A typical interior cabin configuration and arrangement. Accomodation: flight deck: 2, passenger compartment: 18.
- 2. AIRCREW EXTRACTION

NOTE:

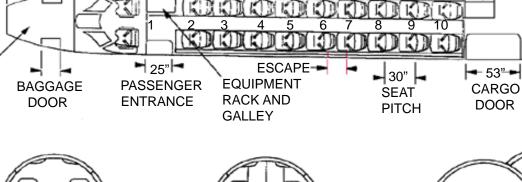
Crew seat armrests can be lowered by depressing a latch under the arm rest.

AVIONICS BAY

- a. Unlatch pilot and co-pilot lap belts and shoulder harness (es)
- b. Unlatch passenger lap belts.

NOTE:

If seat tracks are not damaged due to crash, seat adjustment levers, located inboard of each seat at floor level, can be used to retract seat to full aft position. Passenger seats may or may not be equipped with shoulder harnesses.



530.810"

ESCAPE -

305.00

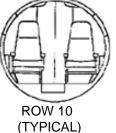
■ESCAPE

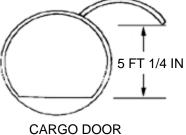


BAGGAGE

DOOR







TOILET

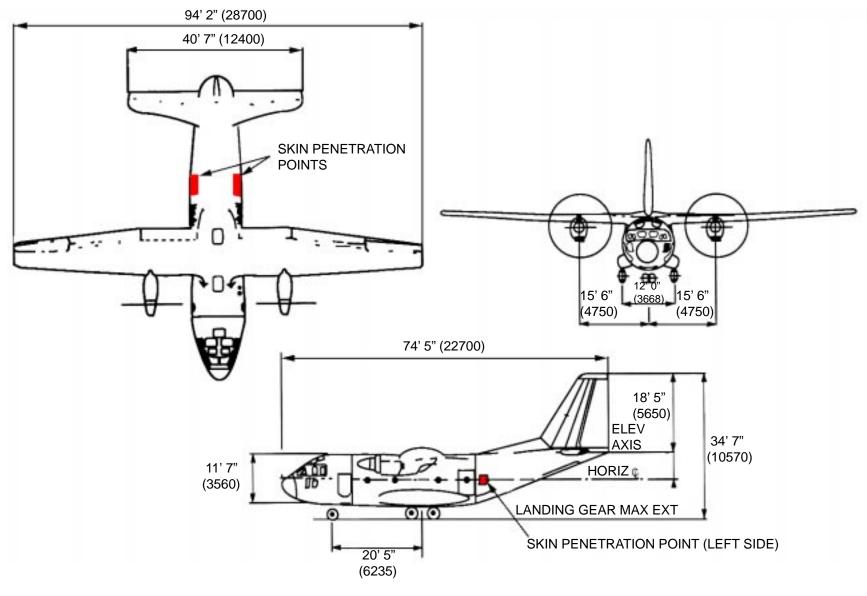
Г.О. 00-105E-9

CARGO

NET

NOTE:

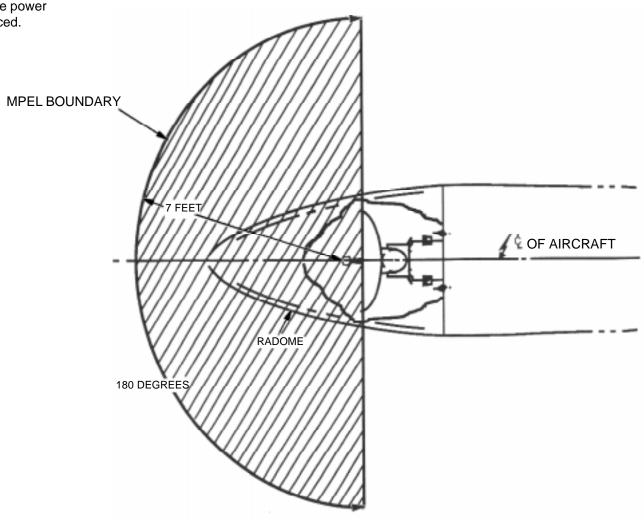
All dimensions are in feet/inches (in millimeters).



AIRCRAFT HAZARDS INFORMATION-Continued

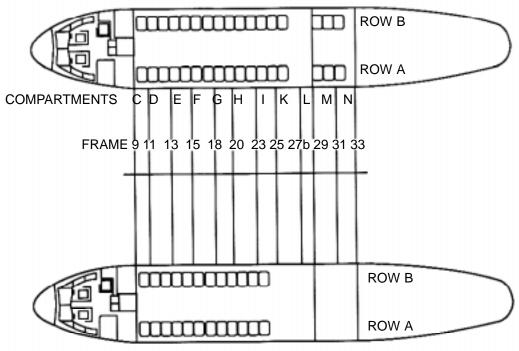
MAXIMUM PERMISSIBLE EXPOSURE LEVEL (MPEL)

In order to avoid the envelope in which the radiation level exceeds the U.S. Government standard of 10 mW per square centimeter, all personnel should remain beyond the distance indicated in the illustration below. The distance to the MPEL boundary is calculated upon the basis of the largest antenna available with the system, rated output power of the transmitter and in the non-rotating or boresight position of the antenna. With a scanning beam, the power density of the MPEL boundary is significantly reduced.



AIRCRAFT CONFIGURATIONS

TROOP TRANSPORT CONFIGURATION 34 SEATS MAXIMUM



NUMBER OF SEATS PER ROW IN TROOP TRANSPORT CONFIGURATION

PARATROOP CONFIGURATION 24 SEATS MAXIMUM

NUMBER OF SEAT PER ROW IN TROOP PARATROOP CONFIGURATION

ROW A NO. OF PLACES 17

TYPE OF SEAT 7 DOUBLE

3 SINGLE

ROW A NO. OF PLACES 12

TYPE OF SEAT 6 DOUBLE

ROW B NO. OF PLACES 17

TYPE OF SEAT 7 DOUBLE

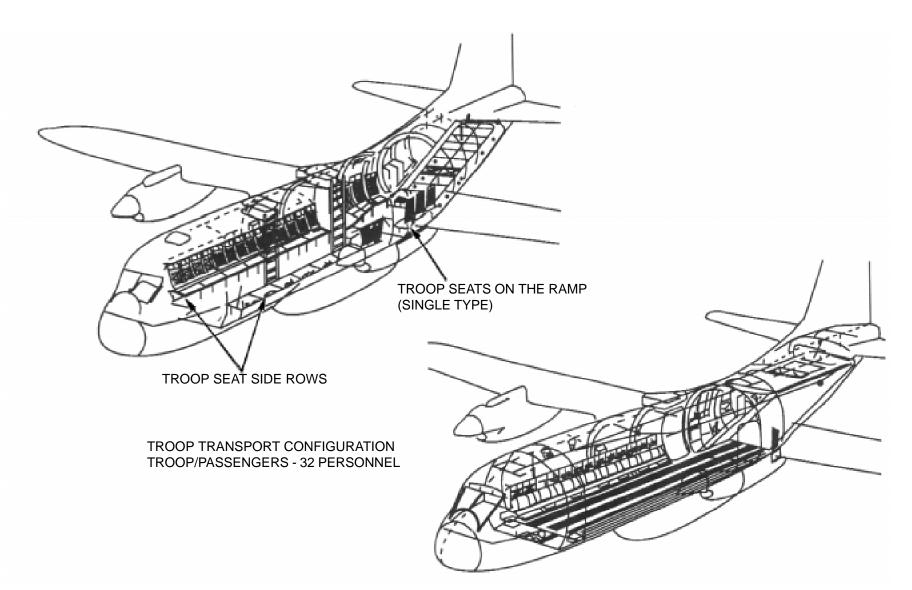
3 SINGLE

ROW B NO. OF PLACES 12

TYPE OF SEAT 6 DOUBLE

NUMBER OF SEATS PER COMPARTMENT

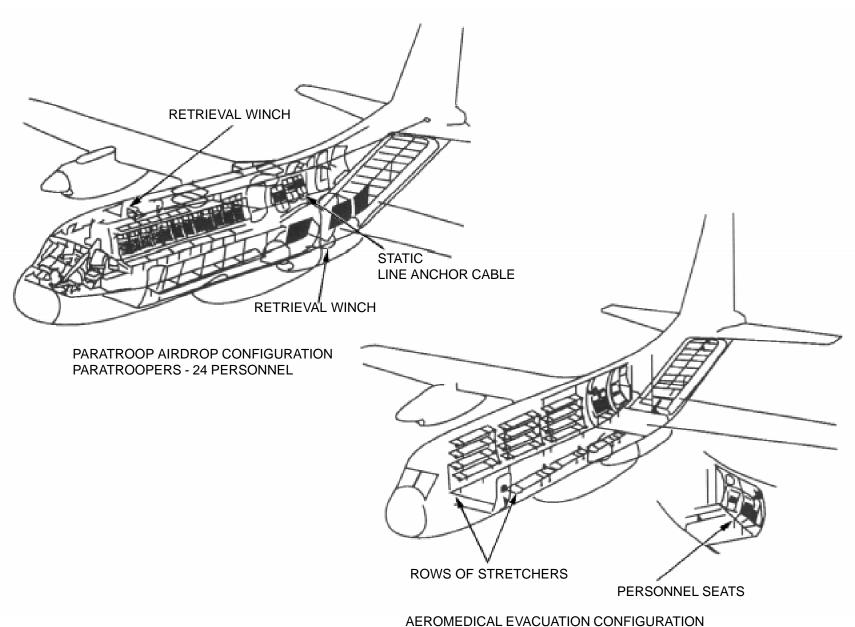
NOMBER OF SEATS FER COMPARTMENT											
COMPARTMENTS	O	ם	Ш	F	G	Η	-	┙	Μ	Z	0
TROOP TRANSPORT	2	4	4	4	4	4	4	2	/	4	2
CONFIGURATION								L	Μ,		
PARATROOP CONFIGURATION	2	4	4	4	4	4	2	//	//		



MATERIAL TRANSPORT CONFIGURATION

AIRCRAFT CONFIGURATIONS-Continued

C-27A.6

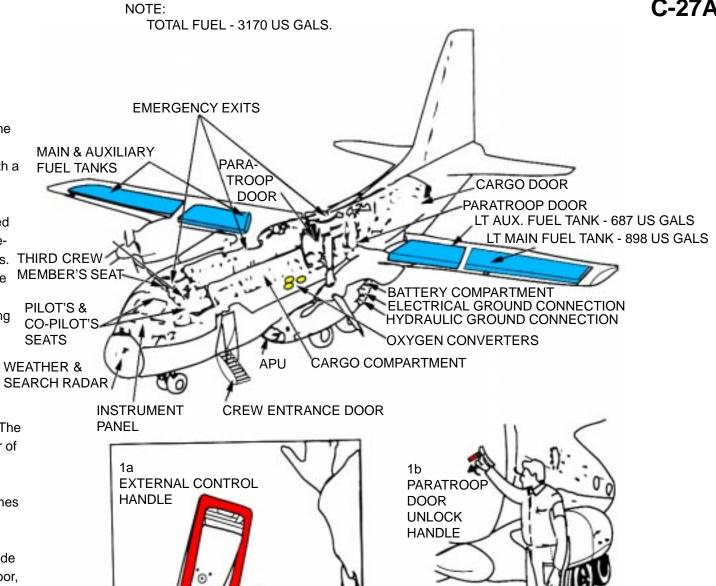


AEROMEDICAL - 24 LITTERS AND 5 ATTENDEES

AIRCRAFT ENTRY

- NORMAL ENTRY
- a. Pull the external control handle on the crew entrance door, located bottom center of door. Door is equipped with a stairway.
- The two paratroops doors are located on the right and left sides of the fuselage, behind the landing gear fairings. THIRD CREW The doors are opened by rotating the unlocking handle clockwise and pushing (or pulling) inward and sliding the doors upward.
- **EMERGENCY ENTRY**
- a. There are three upper exit hatches located on the aircraft's backbone. The unlock handles are located at center of each hatch and can be unlocked by depressing two throttle buttons and rotating the handle clockwise. Hatches are hinged and will open inward.
- A toilet exit hatch, located on right side of aircraft opposite crew entrance door, can be opened by depressing hatch button and rotating hinged lever downwards to unlock the hatch bolts. Hatch is hinged and will open inward.

0000 -



NOTE:

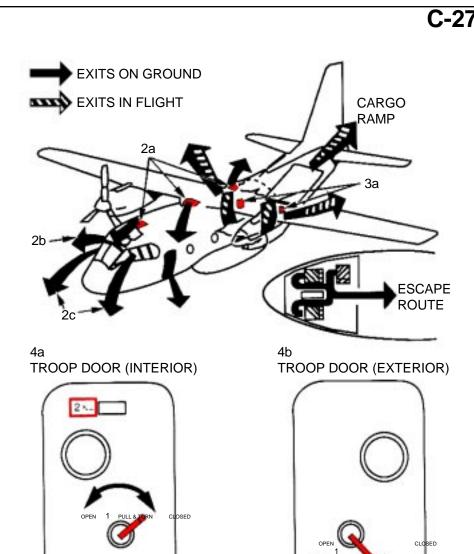
C-27A.8

If pip-pins are installed, entry through hatches cannot be accomplished. Pip-pins prevent accidental opening. They will be removed before flight.

- Flight compartment windows can be removed once unlocked, by pulling a ring located on the upper aft part of each window.
- 3. CUT-IN
- Two cut-in areas are provided to the rear of each paratroop door on the fuselage defined by black corner markings.
- 4. PARATROOP DOOR OPERATION
- Unlocking from the outside, rotate center handle counterclockwise, push door inward to stops, and force door over stops by pushing upward and inward on lower door surface.
- Unlocking from the inside, raise and turn center handle and rotate clockwise, pull door inwards using upper left hand hold, and force door over stops by pulling upward and inward on lower door surface.

NOTE:

All aircraft doors and hatches (with the exception of pilot's and copilot's windows that can be opened from the inside) can be opened both from inside and outside and for this reason can be used in case of emergency, both to evacuate the aircraft and to carry out rescue operations from the outside.



EMERGENCY ENTRY

ROTATE HANDLE TO OPEN

PUSH DOOR INWARD TO STOPS

AIRCRAFT ENTRY-Continued

5. EMERGENCY HATCH ACCESS LADDER INSTALLATION

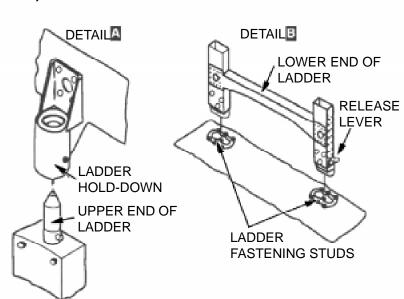
- a. Insert the upper end at the ladder into the ladder hold down. (See detail A.)
- b. Push the ladder upward.
- c. Align with the fastening studs on the floor.
- d. Push the ladder downward until it engages with the fastening studs on the floor. (See detail B.)

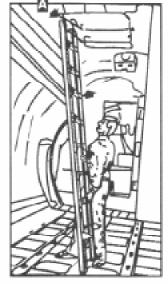
NOTE:

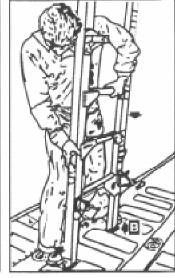
Escape ropes are provided at each upper exit hatch. Length of rope is approximately 20 ft.

WARNING

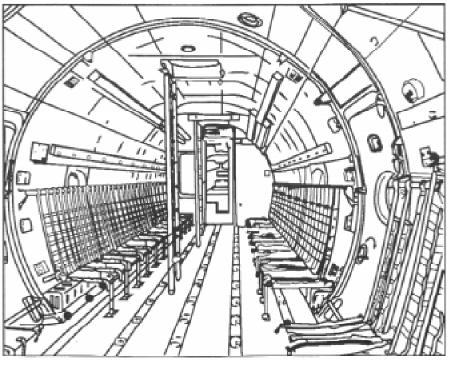
Upper exit hatches open inward and can cause head injuries if allowed to free fall.







FORWARD VIEW OF MOUNTED LADDERS LEADING TO EMERGENCY HATCH OPENING



ENGINE SHUTDOWN AND AIRCREW EXTRACTION

- 1. ENGINE SHUTDOWN
- a. Pull Fire T-handles located at center overhead console.

NOTE:

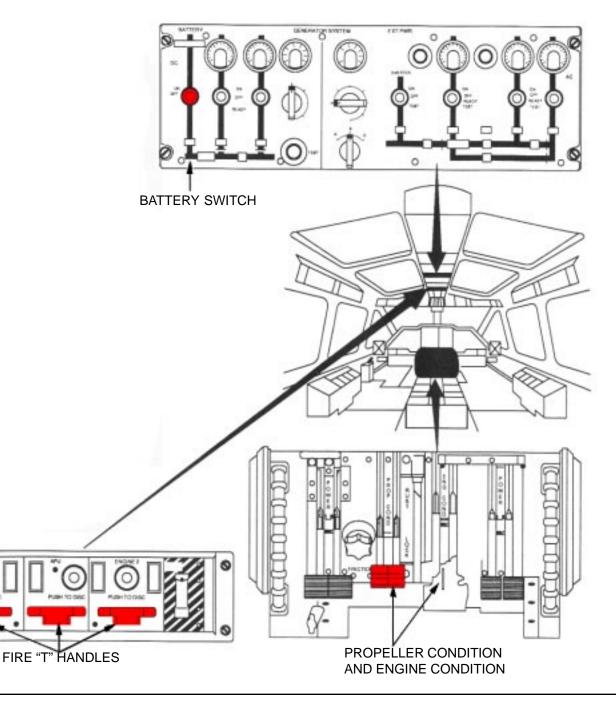
When the POWER lever is in the REVERSE sector, pulling the FIRE PULL handle does not operate the propeller feathering system.

b. Place PROP. COND lever in feather position.

CAUTION

If the engine is at a high power setting, pulling the FIRE PULL handle or placing the PROP COND lever to FEATHER will cause an OVERTORQUE condition.

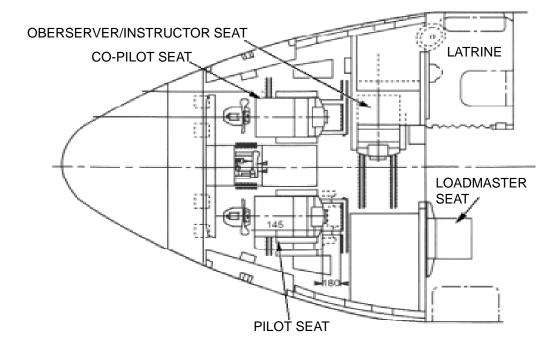
- c. Place ENG. COND lever in STOP position.
- d. Push FIRE T-handles, if a fire indication persists, to discharge agent.
- e. Place the BATTERY SWITCH to OFF.
- f. Extract personnel and evacuate aircraft.



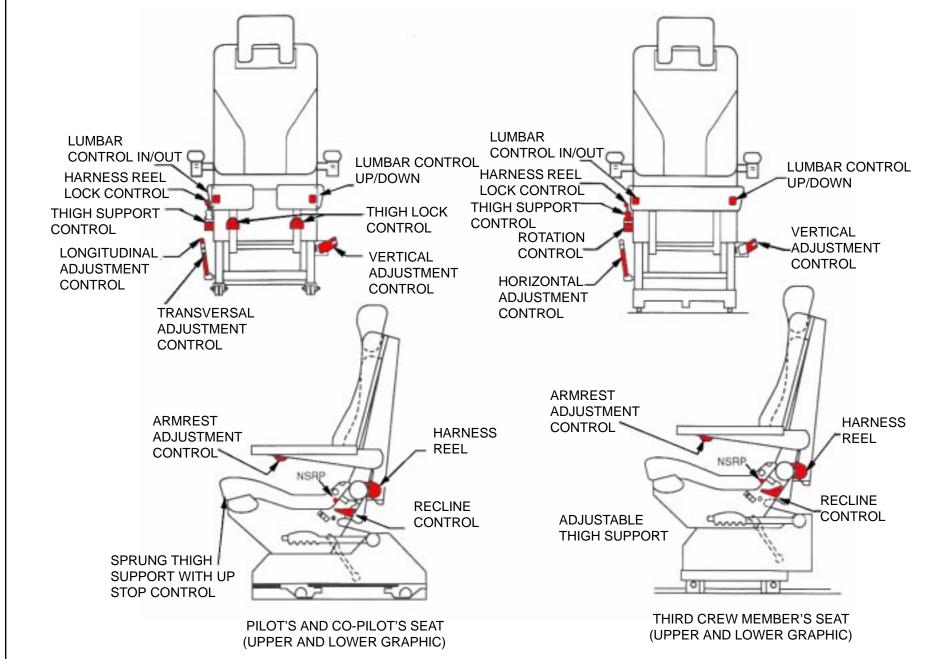
.O. 00-105E-9

AIRCREW EXTRACTION-Continued

- 2. AIRCREW EXTRACTION
- a. Release the four point harnesses by rotating the dial at the center hook-up point for the pilot/copilot and observer/instructor seats.
- b. Release the loadmaster from his seat by releasing the two point seat belt.
- c. Extraction can be made easier by adjusting the crew seats to the fully outboard position. Observer/instructor seat should be adjusted fully aft, extract crewmember, then reposition seat fully forward allowing room for extraction of pilot and copilot.
- d. Passengers do not have shoulder harnesses. Release passengers from two point seat belts.



C-27A.12

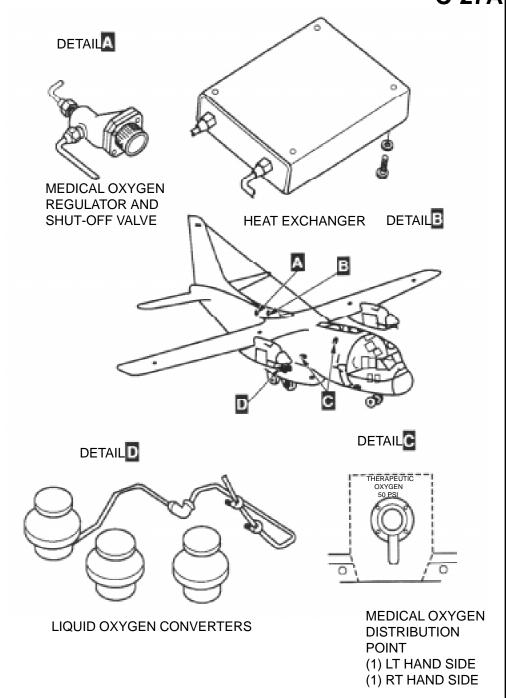


AEROMEDICAL OXYGEN SYSTEM COMPONENTS AND PORTABLE O2 BOTTLES LOCATIONS

- 1. AEROMEDICAL OXYGEN SYSTEM
- a. See details A-D for component location.
- 2. PORTABLE 02 BOTTLES
- a. Five portable 02 bottles are in the aircraft. Three in the cockpit and two in the cargo compartment, one located in the latrine and one in the two additional mounting locations located in the right rear of the cargo compartment.

AIRCRAFT EXPLOSIVES

- 1. AIRCRAFT FLARES.(Not pictured.)
- a. Aircraft is equipped with a total of six flares: 3 green and 3 red. Class C explosive.
- b. Aircraft is equipped with a pyrotechnic pistol that is used to fire the above signal flares. The location of the pistol is housed in a compartment closed by a small door on the right side of the cockpit above the main circuit breaker panel.
- EXTINGUISHER CARTRIDGES (Not pictured.)
- a. The right, left engines and APU are equipped with extinguisher bottles explosive cartridges. These cartridges are 1.4 rated. Extinguishers utilize Halon 1211.



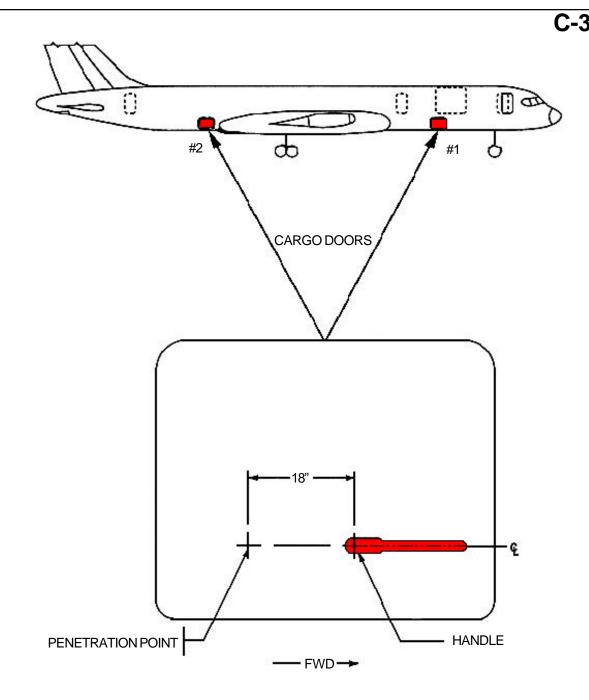




SKIN PENETRATION POINTS

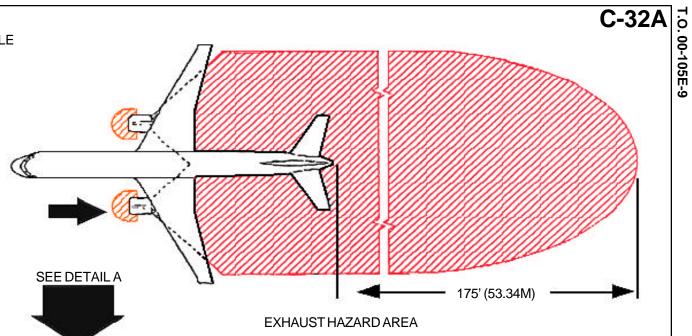
NOTE:

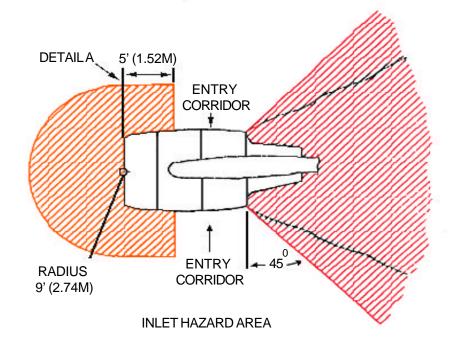
This aircraft is the same as a Boeing 757-200. The C-32A is the official USAF designation for Vice Presidential transport. It has been modified and configured to accommodate his staff, a distinguished visitor stateroom, a conference area, a business class and general seating. See the INTERIOR ARRANGEMENT page for specifics.



WARNING

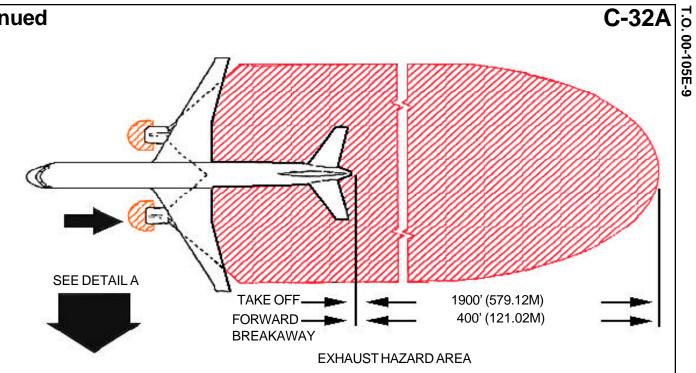
- If surface wind is reported greater than 25 knots, increase distance of intake boundary by 20%.
- If ramp surfaces are slippery, additional precautions such as cleaning the ramp will be necessary to provide personnel safety.

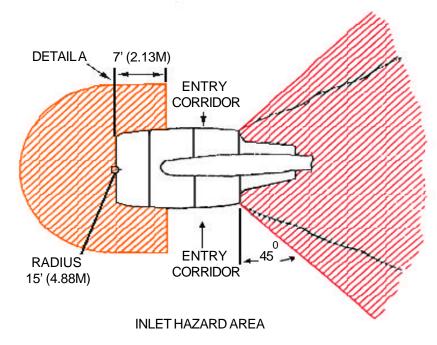




WARNING

- If surface wind is reported greater than 25 knots, increase distance of intake boundary by 20%.
- If ramp surfaces are slippery, additional precautions such as cleaning the ramp will be necessary to provide personnel safety.
- Ground personnel must stand clear of these hazardous zones and maintain communication with flight compartment personnel during engine running.



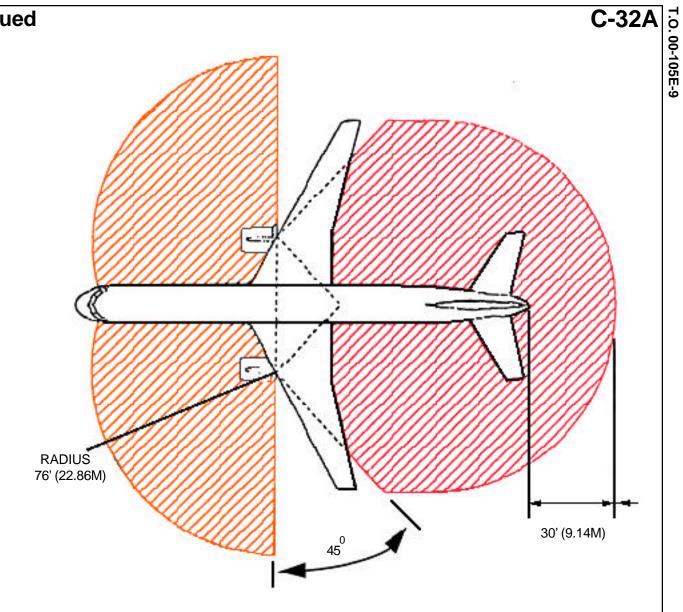


WARNING

- If ramp surfaces are slippery, additional precautions such as cleaning the ramp will be necessary to provide personnel safety.
- Ground personnel must stand clear of these hazardous zones and maintain communication with flight compartment personnel during engine running.

CAUTION

For maintenance, engine operation in reverse thrust is limited to minimum idle power.



NOTE:

MAXIMUM PERMISSIBLE EXPOSURE LEVEL (MPEL)

In order to avoid the envelope in which the radiation level may exceed the U.S. Government standard of 10 miliwatt per square centimeter, all personnel should remain beyond the distance indicated in the illustration. The distance to the MPEL boundary is determined by calculating the near field/far field intersection per FAA Advisory Circular 20-68B.

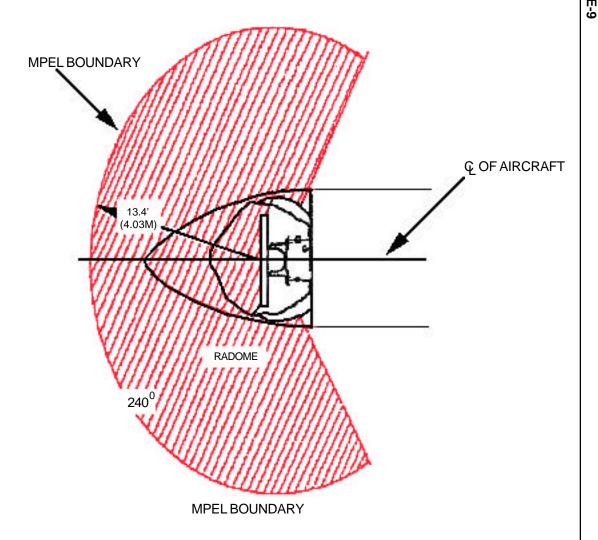
WARNING

The C-32A radome generates microwave radiation. Improper use or exposure may cause serious bodily injury. Maintain prescribed safe distance when standing in front of a radiating antenna. Never expose eyes or any part of the body to an unterminated waveguide.

The HF-9000 High-Frequency Communications System can cause serious burns from direct contact when the system is transmitting. Do not touch the RF output terminal on the antenna coupler, the antenna lead-in wire, the insulated feedthrough, or the antenna itself. When operated into an antenna, it may produce electromagnetic fields near the antenna that exceed OSHA recommended maximum limits.

DO NOT operate the Airborne Weather Radar (AWR) during refueling of the aircraft nor when within 300 feet (91.44 meters) of other refueling operations.

DO NOT operate the AWR within 15 feet (4.57meters) of ground personnel or containers holding flammable or explosive material.



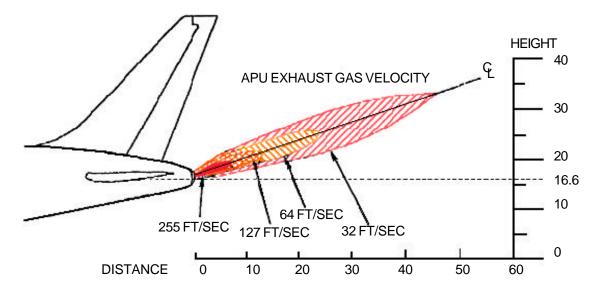
AIRCRAFT HAZARDS-Continued

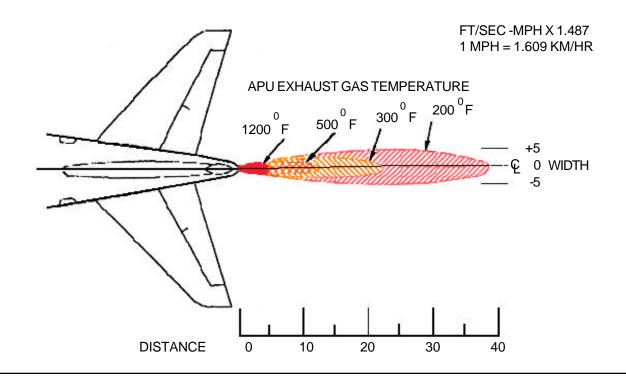
C-32A T.O. 00-105E-9

AUXILIARY POWER UNIT EXHAUST WAKE

NOTE:

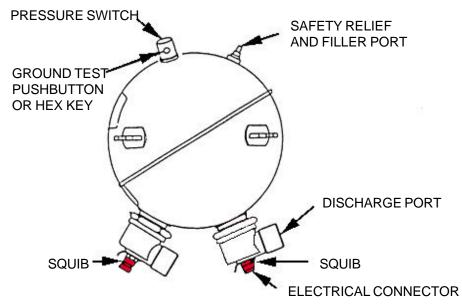
Measurement in feet.



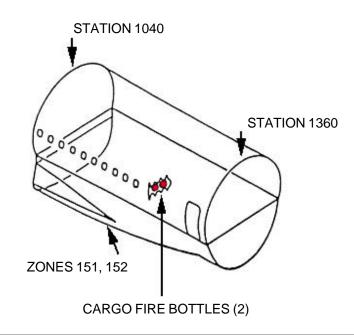


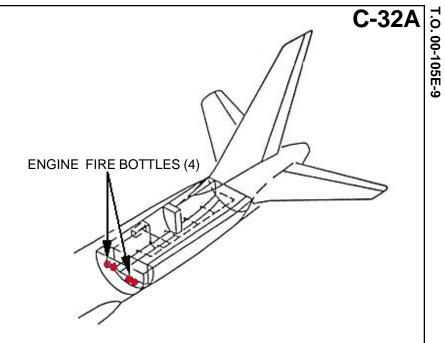
AIRCRAFT HAZARDS-Continued

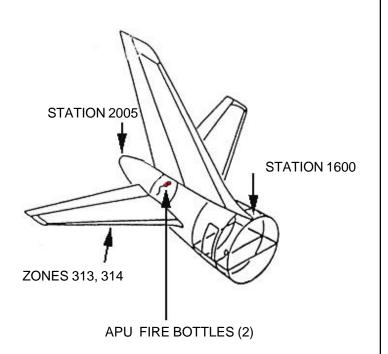
FIRE EXTINGUISHING SYSTEM PYROTECHNIC CARTRIDGES AND LOCATIONS



TYPICAL FIRE EXTINGUISHER BOTTLE





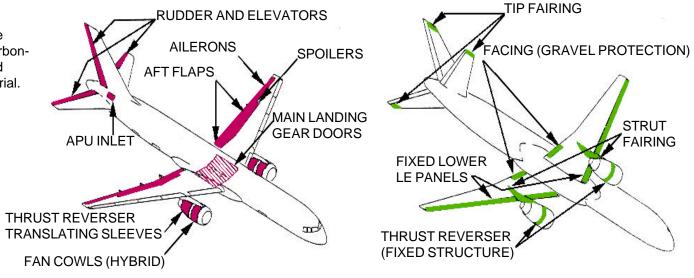


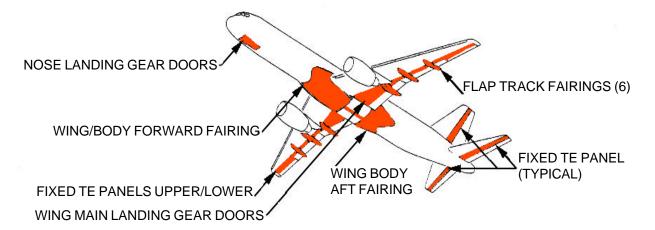
NOTE:

The airframe materials for the C-32A are titanium, titanium alloy, carbon fibre, carbonreinforced aramid-fiberglass, aramid and carbon epoxy preimpregnated raw material.

LEGEND:

- LE Leading edge
- TE Trailing edge
- CARBON-ARAMID (HYBRID)
- **ARAMID**
 - **CARBON-ARAMID-**FIBERGLASS (HYBRID)





ADF=AUTOMATIC DIRECTION FINDER

DME L = DISTANCE MEASURING EQUIPMENT LEFT

DME R = DISTANCE MEASURING EQUIPMENT RIGHT

GLIDE SCOPE C = GLIDE SCOPE CENTER

GLIDE SCOPE L = GLIDE SCOPE LEFT

GLIDE SCOPE R = GLIDE SCOPE RIGHT

GPS = GLOBAL POSITIONING SYSTEM

HF L = HIGH FREQUENCY LEFT

HFR=HIGH FREQUENCY RIGHT

IFF/ATC BOTTOM = IDENTIFY FRIEND OR FOE/AIR TRAFFIC CONTROL BOTTOM

IFF/ATC BOTTOM

IFF/ATC TOP = IDENTIFY FRIEND OR FOE/AIR TRAFFIC CONTROL TOP

LOCALIZER C = LOCALIZER CENTER LOCALIZER L = LOCALIZER LEFT

LOCALIZER R = LOCALIZER RIGHT

ANTENNA LEGEND

NATS = NORTH ATLANTIC TRACK SYSTEM

RCVR RADIO ALTIMETER = RECEIVER RADIO ALTIMETER

TCAS ANTENNA BOTTOM = TRAFFIC COLLISION AVOIDANCE BOTTOM

TCAS ANTENNA TOP = TRAFFIC COLLISION AVOIDANCE TOP

TACAN = TACTICAL AIR NAVIGATION

UHF = ULTRA HIGH FREQUENCY

UHF SATCOM = ULTRA HIGH FREQUENCY SATELITE COMMUNICATION

VHFR = VERY HIGH FREQUENCY RIGHT

VHF L = VERY HIGH FREQUENCY LEFT

VHF C = VERY HIGH FREQUENCY CENTER

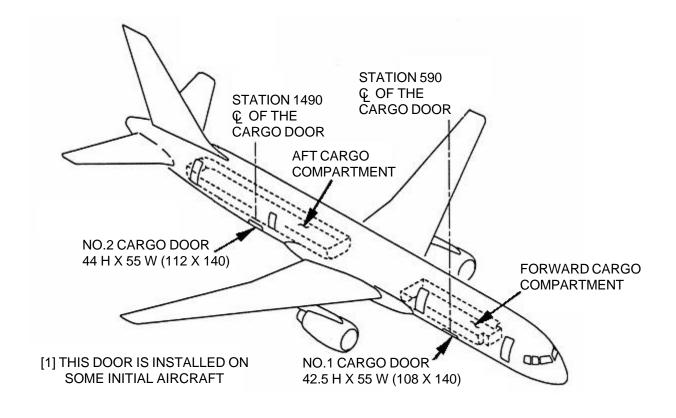
VOR L = VHF OMNI RANGE LEFT

VOR R = VHF OMNI RANGE RIGHT

WEATHER RADAR = WEATHER RADAR

NOTE:

Measurements are given in inches (centimeters).



SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw

35 Foot Ladder

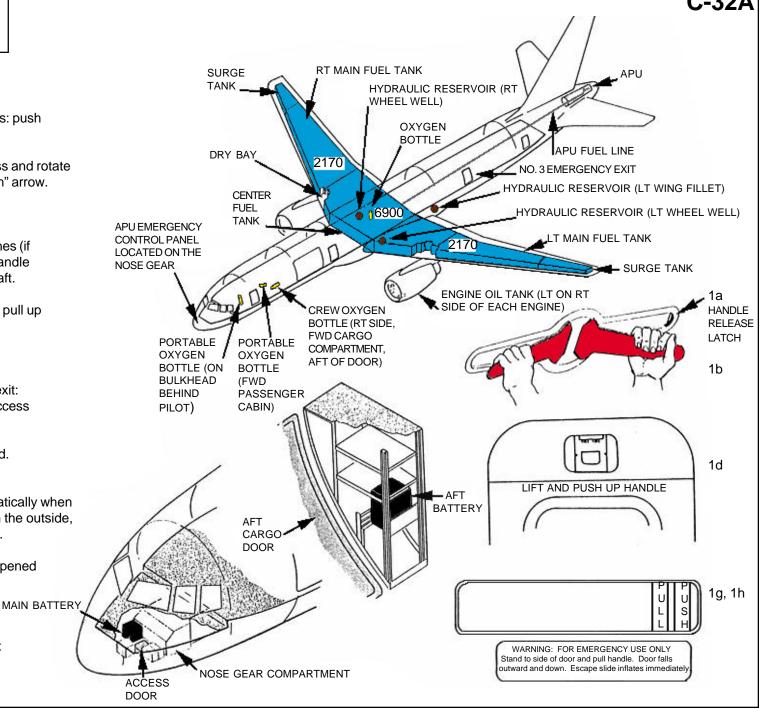
Fire Drill II

AIRCRAFT ENTRY

- 1. NORMAL/EMERGENCY
- a. To open entry and service doors: push handle release latch.
- b. Pull butterfly handle from recess and rotate 180 degrees in direction of "open" arrow.
- c. Pull door outward.
- d. To open overwing escape hatches (if installed): lift lower portion of handle away from the side of the aircraft.
- e. Continue to raise handle to the pull up position.
- f. Push hatch inward and upward.
- g. To open number 3 emergency exit: push on "push" panel to gain access to handle.
- h. Pull handle forward and outward.

NOTE:

- Escape slide disarms automatically when door or hatch is opened from the outside, except No. 3 emergency exit.
- Cockpit windows cannot be opened from the outside.
- 2. CUT-IN
- a. Cut along window lines as last resort.



AIRSTAIR OPERATION

. AIRSTAIR OPERATION

The airstair is manually moved from the closet to the deployed position in the doorway and from the deploy position back to the closet. Once the airstair is in the deploy position it is hydraulically operated and electrically controlled. A control box for the operation of the airstair and step lights is mounted adjacent to the door entry. A micro switch. located under the floor will be depressed by the FWD latch pen fitting enabling a "READY" light to illuminate on the control panel signifying that the airstair is locked in place and safe to extend. Pressing and holding the 'EXTEND" switch will provide power to an electric motor that will drive the hydraulic pump. When the "LATCH" light illuminates the "EXTEND" switch may be released and the airstair will continue to extend by gravity. To retract the airstair, simply push and hold the "RETRACT" switch until the airstair is fully retracted. Once fully retracted it may be placed back in the closet and secured. The "POWER ON" switch/light indicates power is available. Power is provided from three battery bus circuit breakers located on the P6 panel and through an electrical connector receptacle adjacent the door opening. While electrical power is connected and available the airstair segments may be illuminated by pressing the "AIRSTAIRS LIGHTS" switch.

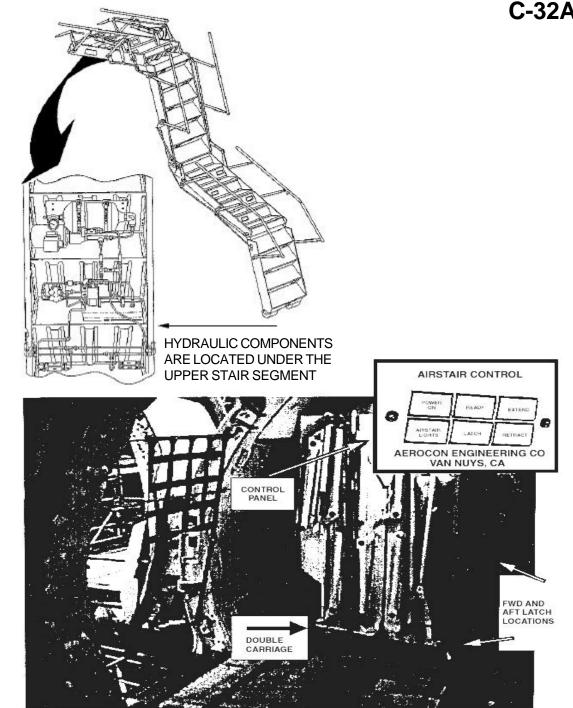
CAUTION

Airstair deployment is limited to winds and/or gusts below 30 knots.

NOTE:

While moving stair through door opening, be advised of possible rubbing impact with decorative doorframe.

The control panel is made up of six indicating lights. The center lights provide indication only and the fwd and aft lights are switchlights that also provide control.



ENGINE, APU SHUTDOWN AND AIRCREW EXTRACTION

C-32A 0.00-105E-9

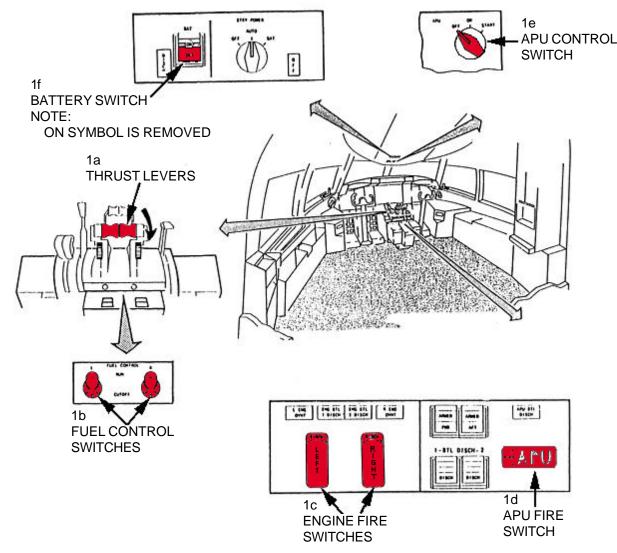
- 1. ENGINE SHUTDOWN
- Retard thrust levers, located on pilot's center console, to RETARD position.
- b. Place fuel control switches, located on pilot's cente console under thrust levers, to CUT OFF position.
- c. In case of engine fire, pull engine fire switches, located on pilot's center console. Turn left or right to release agent. If not illuminated, push and hold the button under the switch to release.
- d. In case of APU fire, pull APU fire switch, located on pilot's center console to the right of the engine fire switches. Turn switch up or down to release agent. If not illuminated, push and hold the button under th switch to release.
- Rotate APU control switch, located on pilot's overhead panel to OFF.
- f. Press battery switch, located on pilot's overhead center panel left side, to OFF.

2. AIRCREW EXTRACTION

- Unlatch lap belts and remove shoulder harness from crewmembers.
- b. Depress control handles and rotate flight engineer's seat from left to right.
- c. Passenger seats are equipped with lap belts only.

NOTE:

If seat tracks are not damaged during crash landing, use adjustable seat control to retract seats to aft position.



CRITICAL SWITCH LOCATIONS AND THEIR OPERATION ARE SHOWN WITH THE EXPANDED VIEWS OF THE CONTROL MODULES

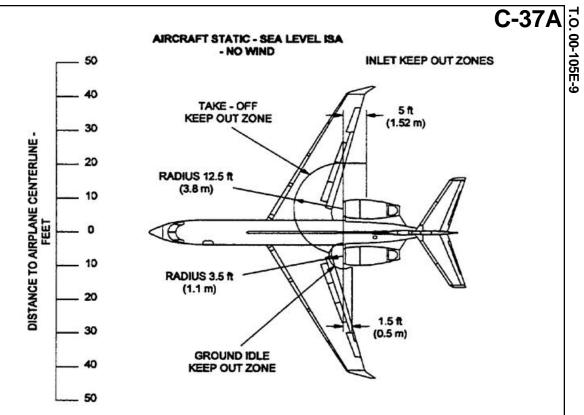


AIRCRAFT DIMENSIONS GENERAL DATA		C-37
Wing Area Aspect Ratio Quarter Chord Sweep Taper Ratio MAC	1136.5 Sq. Ft. 6.89 27.00 degrees 0.268 171.19 ln.	WINGSPAN 88.50 FT(1062.00 IN)
Horizontal Tail Area Vertical Tail Area	260.85 Sq. Ft. 155.00 Sq. Ft.	50.501 (1002.50 IIV)
Cabin Length Total Volumn Cabin Volumn	51.08 Ft. 1,902 Cu. Ft. 1,681 Cu. Ft.	
Engine Takeoff Thrust - SLS	(2ea) BR710-48 14,465 lb. (Installed)	
Max Takeoff Gross Wt. Max Zero Fuel Wt. Max Usable Fuel Wt. Manf''s Bare Wt. Empty	89,000 lb 53,300 lb 41,000 lb 38,000 lb	
	OVERALL WINGS 93.47 FT(1121.69	- 1
	** -	OVERALL HEIGHT 25.30 FT(303.64 IN) OVERALL LENGTH 96.40 FT(1156.82 IN)

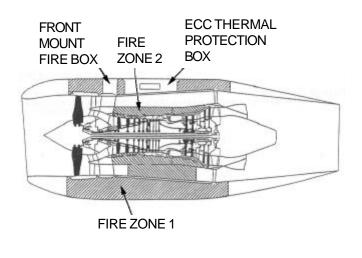
INLET AND EXHAUST

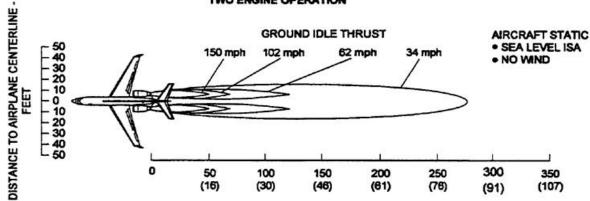
NOTE:

- The C-37A is a Gulfstream V airframe modified for USAF missions, similiar to the C-20. Its purpose is a Presidential, VP, or VIP, small airframe carrier. It will land where Air Force One or the C-32A (757-200) can not.
- Depending on the type of operation being carried out, the following areas of the aircraft are to be considered danger or caution areas. These areas are intended as a general reference for ramp and rescue personnel.



BMW Rolls-Royce AeroEngine





AXIAL DISTANCE - FEET (METERS)

JET EXHAUST KEEP - OUT ZONES TWO ENGINE OPERATION

HF-9000 AND RADAR DANGERS

C-37A.

WARNING

The *HF-9000 High-Frequency Communications System can cause serious burns from direct contact when the system is transmitting. Do not touch the RF output terminal on the antenna coupler, the antenna lead-in wire, the insulated feedthrough, or the antenna itself. When operated into an antenna, it may produce electromagnetic fields near the antenna that exceed OSHA recommended maximum limits. GPS#2 GPS#1

> **AIRBORNE** WEATHER **RADAR**

(AWR)

GLIDE,

SCOPE

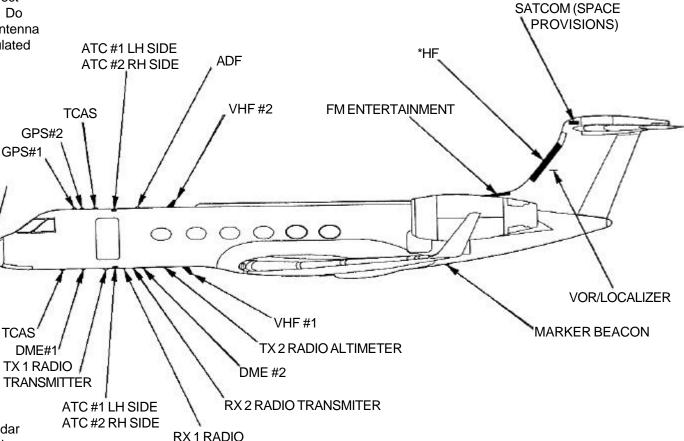
TCAS

WARNING

DO NOT operate the Airborne Weather Radar (AWR) during refueling of the aircraft nor when within 300 feet (91.44 meters) of other refueling operations.

WARNING

DO NOT operate the AWR within 15 feet (4.57 meters) of ground personnel or containers holding flammable or explosive material.



ALTIMETER

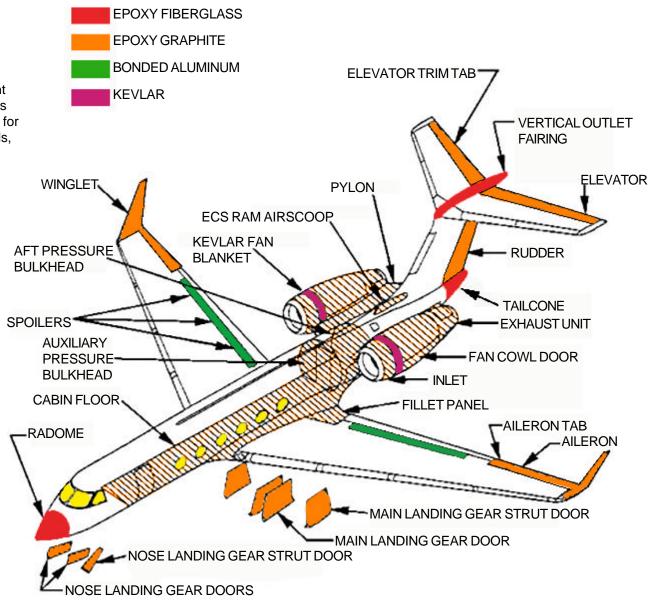
.O. 00-105E-9

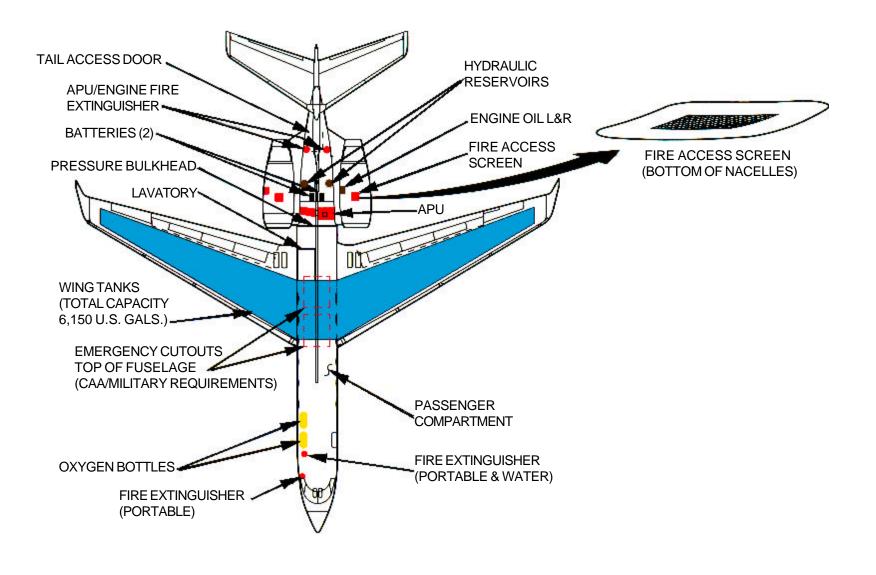
NOTE:

Ailerons on A/C 521 & 542 are metalriveted sheet metal.

NOTE:

Composite materials are used extensively on this aircraft (Gulfstream V) to save weight and increase strength. Composite materials include metallic and non-metallic structures for bulkheads, doors, flight controls, floor panels, fairings, nacelles, panels, pylons, radome, tailcone, and winglets.





SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw

12 Foot Ladder

Fire Drill II

AIRCRAFT ENTRY

- 1. NORMAL ENTRY
- a. Push inner latch handle.
- b. Pull out latch handle.

WARNING

Door is hinged at bottom and will fall open rapidly, especially if door was closed manually without hydraulic pressure.

- c. Pull door open.
- d. Main door will not open fully with landing gear up.
- 2. EMERGENCY ENTRY

NOTE:

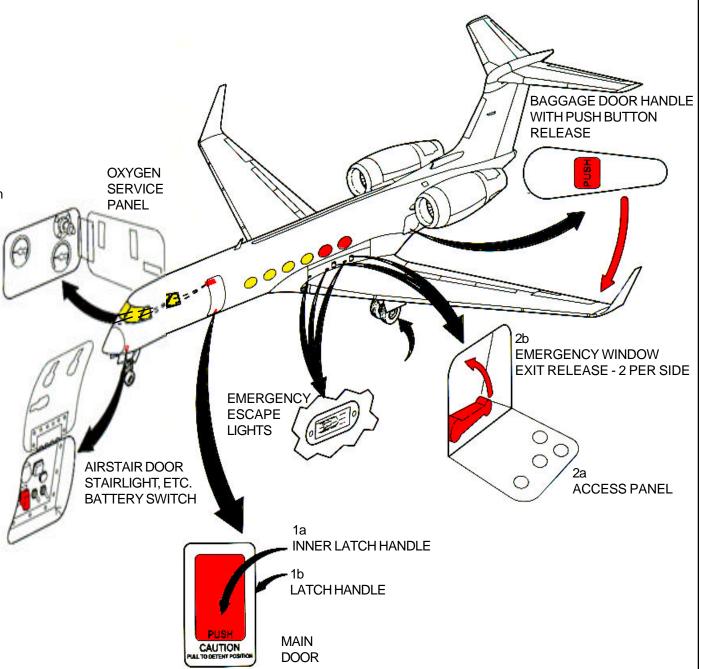
Two emergency exits are located on each side of the aircraft.

- a. Push button to open access panel.
- b. Pull handle, located inside access panel up to release window and push window in.
- 3. CUT-IN

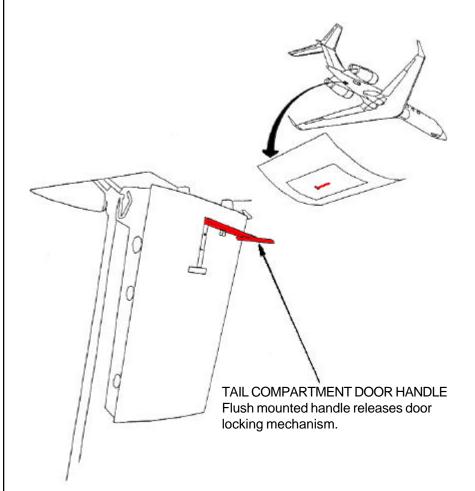
CAUTION

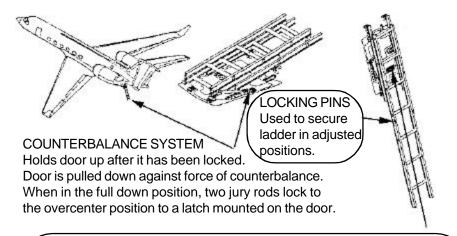
Windshield panels cannot be chopped or broken out.

a. Cut fuselage as required.

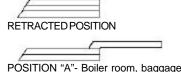


TAIL COMPARTMENT AND LADDER





LADDER INSTRUCTIONS



POSITION "A"- Boiler room, baggage door wing RH nacelle oil filler and cowling access.

POSITION "B"- Cowling access LH (fully extended).

POSITION "C"- RH nacelle oil filler and cowling access LH (fully extended).

- 1. To lower ladder, remove 2 pip pins thru door brackets at lower end of door.
- 2. Lift ladder up and aft to clear latch housing, then lower.
- Lower bottom extension and reinstall pip pins thru door brackets.
- 4. To remove ladder, follow step 1 and 2, then lower. Ladder tracks are aligned with rollers, then pull.

ENGINE AND APU SHUTDOWN
NOTE:
Each fire hare " Each fire handle is capable of rotation to two positions after placement in the OUT position. The positions are labeled DISCH 1 for the right fire bottle and DISH 2 for the left fire bottle. When it is necessary to discharge a fire bottle, ALWAYS use DISCH 1 first. This will discharge extinguishing agent from the RIGHT fire bottle, preserving the LEFT fire bottle for APU protection. Only the LEFT fire bottle can be used for APU protection.

NOTE:

The Fire Detection and Warning System detects overheat or fire in the engines, engine pylons, APU, and passenger/tail areas.

ENGINE and APU FIRES

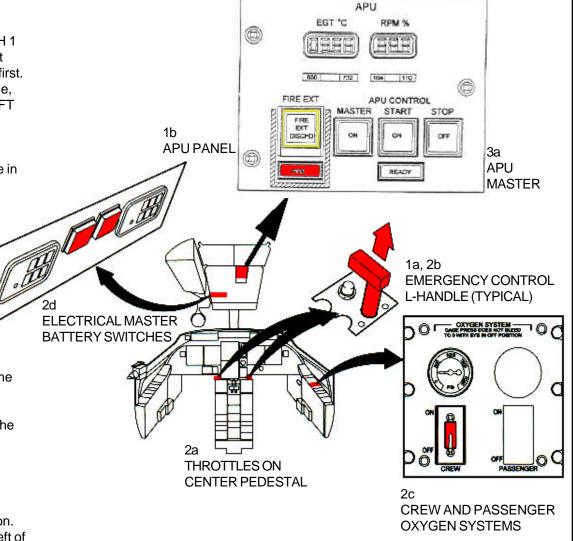
NOTE:

Appropriate handle will be illuminated red indicating fire. Fire extinguishing systems receives its power from the main batteries. DO NOT push battery switches to OFF until engine/APU shutdown is complete.

- a. In case of engine fire, pulling the fire L-handle located on the forward portion of the flightdeck center pedestal. shuts off the engine generator, fuel, hydraulic fluid to and from the associated engine.
- b. In case of APU fire, select the APU MASTER to Off. Depress the APU FIRE EXT switch to discharge the LEFT fire bottle into the APU enclosure.

2. ENGINE SHUTDOWN

- a. Pull throttles, located on the center pedestal, to the shut position.
- b. Pull fire L-handles (do not rotate if no fire), located to right and left of the throttles.
- c. Turn oxygen switches to OFF.
- d. Push main battery switches to OFF.
- APU SHUTDOWN
- a. Place APU Master to OFF.

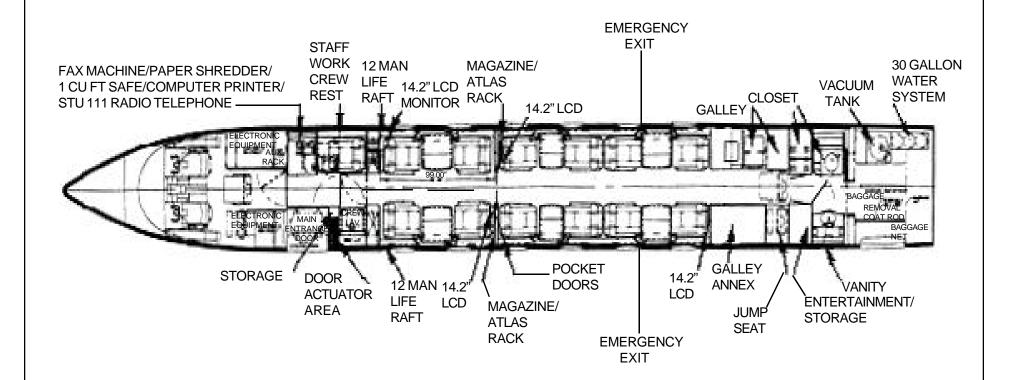


C-37A T.O. 00-105E-9 **AIRCREW EXTRACTION** 1. AIRCREW EXTRACTION SHOULDER a. Disconnect restraints by rotating SHOULDER **HARNESSES** rotary buckle in either direction. **HARNESSES** b. Position seats using various LAP control handles to position **LUMBAR ROTARY BUCKLE BELT** crewmember for extraction. CONTROL DISCONNECT **UP/DOWN** c. Passenger seats are equipped **LUMBAR CONTROL HANDLE** with seat belts only. UP/DOWN HANDLE **CROTCH** BELT -THIGH SUPPORT CONTROL HANDLE PILOT'/COPILOT'S SEATS 30 DEG RECLINE 3 DEG MIN RECLINE **OBSERVER'S SEAT** HARNESS REEL HARNESS REEL LOCK CONTROL TRACK LOCK CONTROL ARMREST ADJUSTMENT **SEAT RAISED** CONTROL TILT CONTROL HANDLE 3.1 **SEAT LOWERED VERTICAL**

RECLINE CONTROL

ADJUSTMENT

CONTROL (ON FAR SIDE)



Г.О. 00-105E-9

AIRCRAFT DANGER AREAS

HF-9000 AND RADAR DANGERS

WARNING

The *HF-9000 High-Frequency Communications System can cause serious burns from direct contact when the system is transmitting. Do not touch the RF output terminal on the antenna coupler, the antenna lead-in wire, the insulated feedthrough, or the antenna itself. When operated into an antenna, it may produce electromagnetic fields near the antenna that exceed OSHA recommended maximum limits.

WARNING

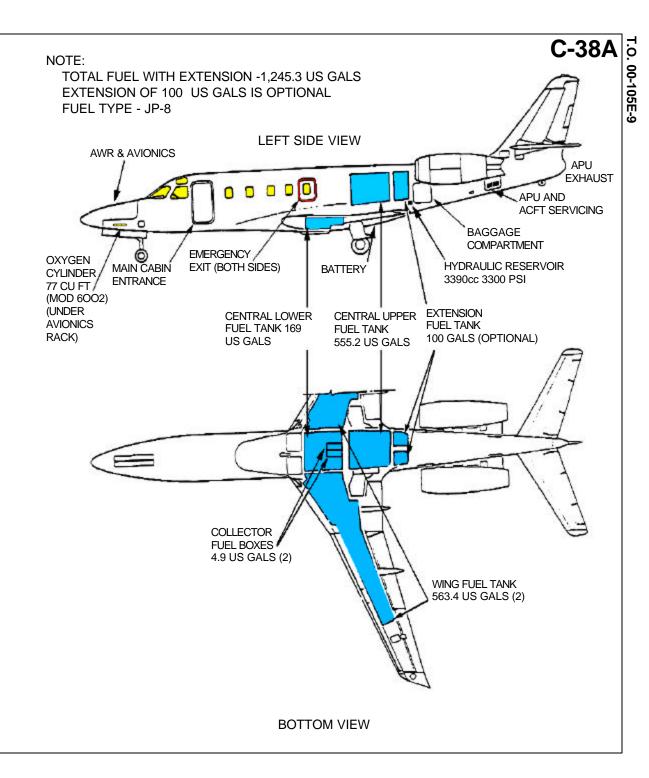
The Airborne Weather Radar (AWR) WXR-840 or the Turbulence Weather Radar System TWR-850 safe distance for human exposure to radiation is 2 feet (0.65 meters). Ground and rescue personnel should take necessary and reasonable precautions to ensure that personnel and equipment sensitive to microwave radiation are kept safely beyond this distance while within the illumination pattern.

WARNING

Oil Handling - Prolonged contact with MIL-L-5606 oils may cause skin rash. The areas of skin and clothing contacting this oil should be thoroughly washed immediately. Areas in which this oil is used shall be adequately vented to reduce mist and fumes to a minimum.

WARNING

Frequent skin contact with MOBIL 254 lubricating oils may result in permanent paralysis, since this oil contains an additive that is poisonous and readily absorbed through the skin. Do not allow this oil to remain on the skin longer than necessary.



AIRCRAFT DANGER AREAS-Continued

OXYGEN AND HYDRAULIC SYSTEMS

NOTE:

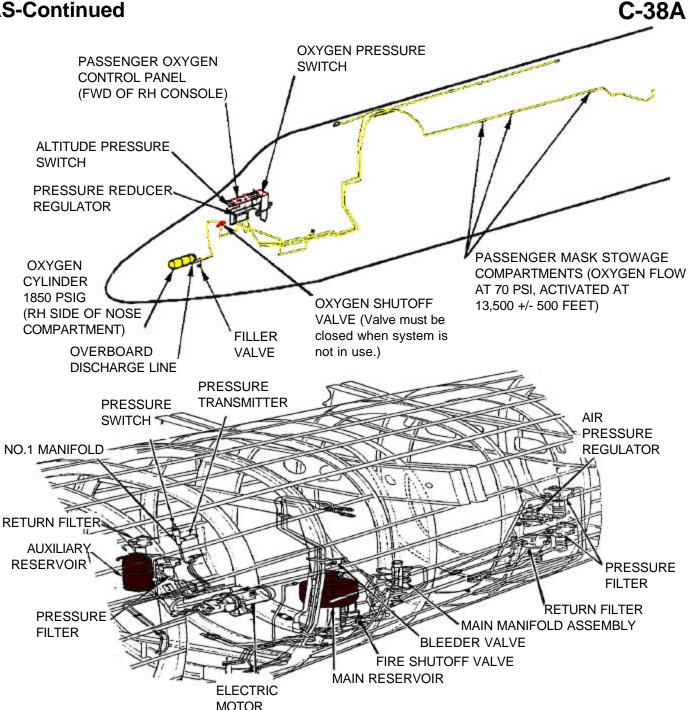
Oxygen system is pressurized to 65 to 95 psig through a pressure reducer, which directly feeds the crew system. The passenger system is fed through an altitude control regulator. There is no third or therapeutic subsystem on this model.

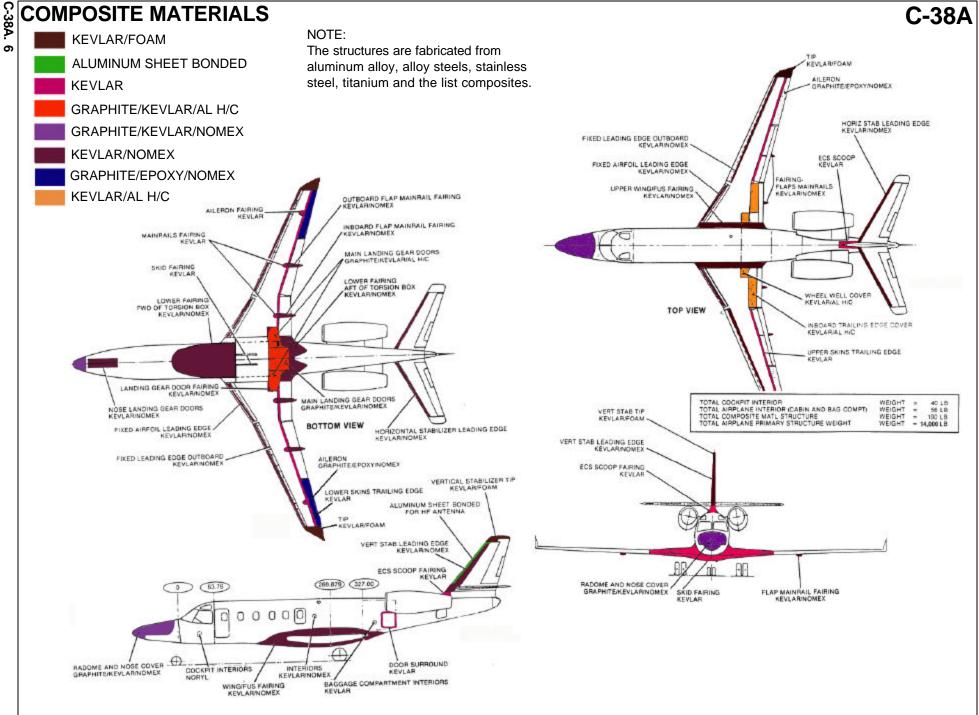
WARNING

Wear chemical goggles and protective gloves. Hydraulic fluid may cause eye, nose and skin irritation. Avoid prolonged breathing or repeated contact with skin.

NOTE:

Hydraulic fluid for the main system is contained in a reservoir located in the rear left side of the baggage compartment at station 390. The reservoir has a fluid capacity of 3890 cc and supplies fluid to operate the ailerons, wheel brakes, landing gear, nose wheel steering and air brakes. Maximum pressure is 3300 psi.





Power Rescue Saw Fire Drill II

2 CREW

NOTE:

6 PASSENGERS (9-SPX Version)

AIRCRAFT ENTRY

NOTE:

The main entrance/airstair for crew and passengers can be opened from the inside or outside when the cabin is depressurized.

1. NORMAL ENTRY

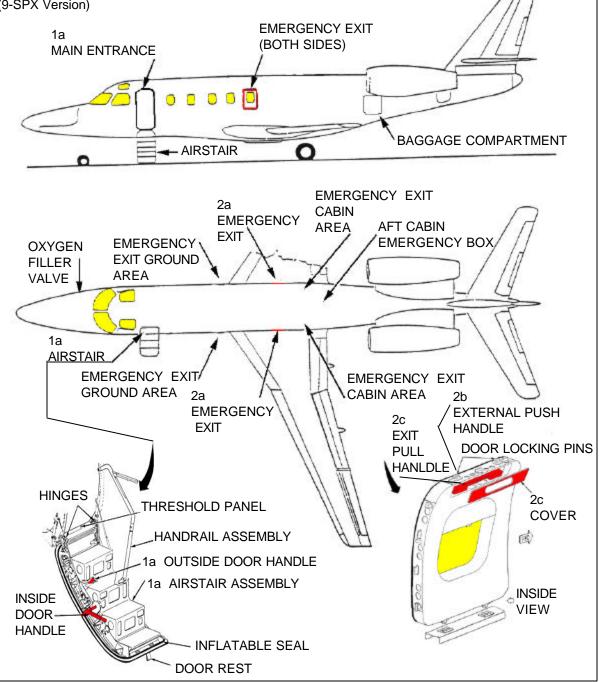
a. To open the main entrance, located on the left forward fuselage, rotate the external locking handle, and unlock the door. Operation of the door handle will deflate the door seal. Door will open outward pivoting on two hinges in the lower door sill in a dampened free fall.

2. EMERGENCY ENTRY

- a. Use step 1a for main entrance.
- Remove either emergency plug-type exit doors, located over each wing, by using the corresponding PUSH handle at center top of door. The emergency doors open inward. Do not place door into egress path.
- c. To remove emergency door internally, pull off the cover to expose the EXIT-PULL handle, located at the top center of the door, pull handle and door inward. Do not place door into egress path.

3. CUT-IN

a. Cut-in as required.



CABIN ARRANGEMENT AND EMERGENCY EQUIPMENT

NOTE:

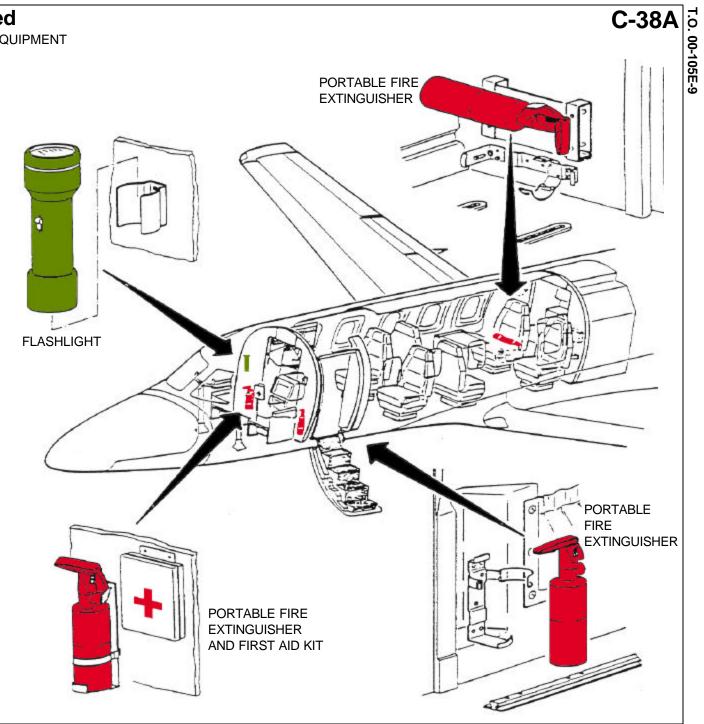
The configuration to the right is for VIP/ personnel transport. The illustrations below depict the SPECTRUM AERO-MED LP 500. The two pictures below depict two types of systems possibly installed. Passenger seats are removed for air evacuation.



INFANT TRANSPORT DECK



SPECTRUM 500 LP FOR ADULTS



1. ENGINE SHUTDOWN

NOTE:

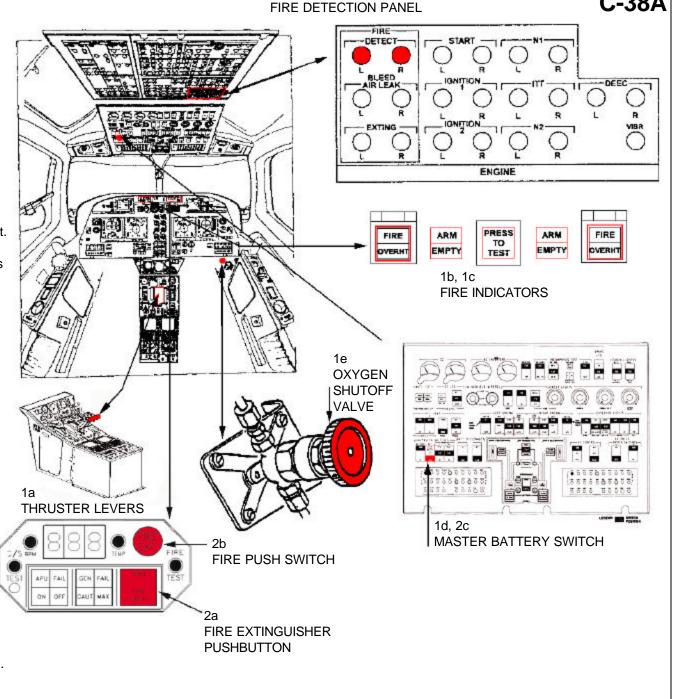
If engine or APU is on fire, do place battery switch to OFF. Battery power is required to operate the fire suppression system.

a. Pull thruster levers to CUT-OFF position.

NOTE:

Each engine nacelle has a fire detection and extinguishing system. There are two zones, the accessories and cumbustor sections. If FIRE light comes on, a fire in zone 1 is present. If OVERHT light comes on, a fire in zone 2 is present. If either FIRE or OVERHT light comes on together with the corresponding light within PRESS TO TEST pushbutton, the warning should be considered false.

- b. In case of an engine fire, the FIRE light will illuminate. Press the appropriate FIRE/ OVERHT pushbutton.
- c. If the FIRE light stays on, press ARM/EMPTY pushbutton. If fire does not go out within 30 seconds, press the remaining ARM/EMPTY pushbutton.
- d. Place BATT MASTER switch to OFF.
- e. Turn off oxygen shutoff valve if time allows.
- 2. APU SHUTDOWN
- a. Press the APU FIRE PUSH switch, located on the copilot's instrument panel, to arm the fire extinguishing system and close the fuel shutoff valve.
- b. In case of fire, press the FIRE EXT pushbutton.
- c. Place BATT MASTER switch to OFF.





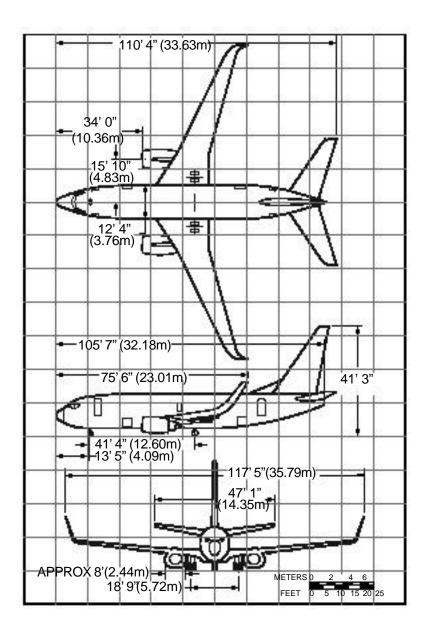
APPLICABILITY: USAF C-40B (VIP TRANSPORT)







EFFECTIVITY: 737-700 WITH WINGLETS



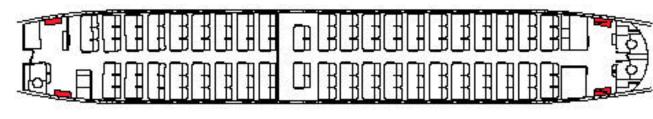
.O. 00-105E-9

C-40A CABIN CONFIGURATIONS

ALL PASSENGER CONFIGURATION WITH FOUR (4) FLIGHT ATTENDANT STATIONS

T.O. 00-105E-9

The C-40A aicraft configuration is a modified 737-700 IGW/QC (Quick Change) jetliner which increases the logistical capabilities of the U.S. Navy's worldwide fleet. It can be configured as an all-passenger, all-cargo or combination of the two. Designated C-40A, the aircraft will be used for the Navy Unique Fleet Essential Airlift (NUFEA) mission, transporting both passengers and cargo around the world. The C-40A can operate in three configurations: an all-passenger (121) configuration, an allcargo configuration of up to eight pallets, or a combination (or "combi") configuration that will accommodate up to 70 passengers and three cargo pallets.

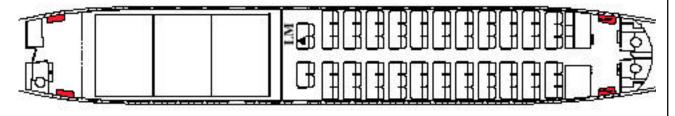


ALL CARGO CONFIGURATION WITH FOUR (4) FLIGHT ATTENDANT STATIONS

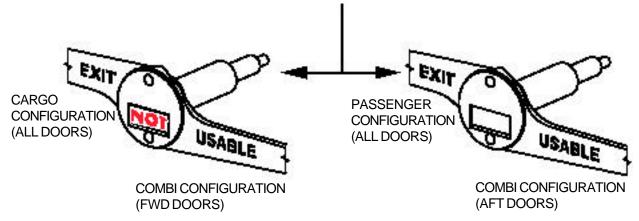


OPERATIONAL DOORS (4 PLACES)

COMBI CONFIGURATION WITH FOUR (4) FLIGHT ATTENDANT STATIONS



C-40A EXTERIOR PASSENGER DOOR HANDLE ONLY

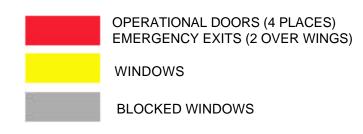


C-40B CABIN CONFIGURATION

The C-40B aircraft configuration is a 737-700 IGW (Increased Gross Weight). This aircraft is specifically designed for VIP transport operated by the USAF.

26 Total Passengers and 11 Crew*

- * Available Crew Seats:
 - 4 Crew Rest Seats
 - 4 Flight Attendant Seats
 - 3 Flightdeck Seats
 - 1 CSO Seat



.O. 00-105E-9

C-40B STATION LOCATIONS



SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw

12 Foot Ladder

Fire Drill II

AIRCRAFT ENTRY

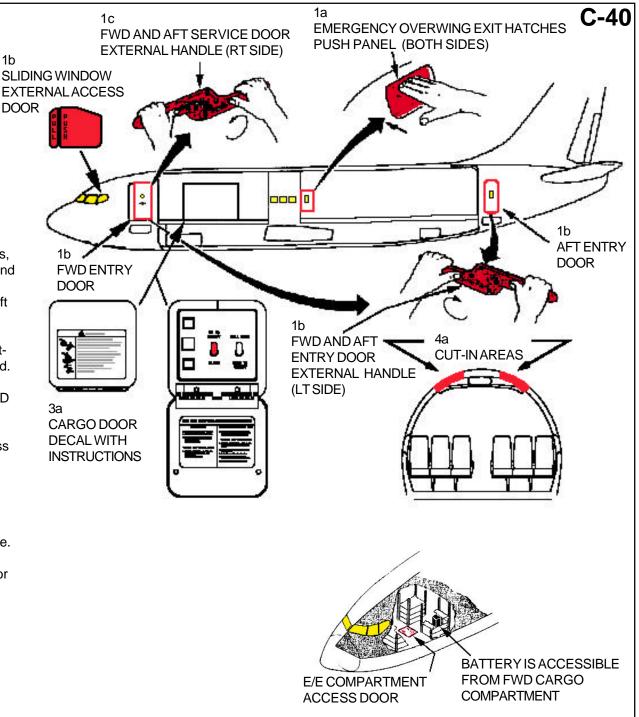
-600/-700/-800 BOEING BUSINESS JET SERIES

1. NORMAL/EMERGENCY ENTRY

CAUTION

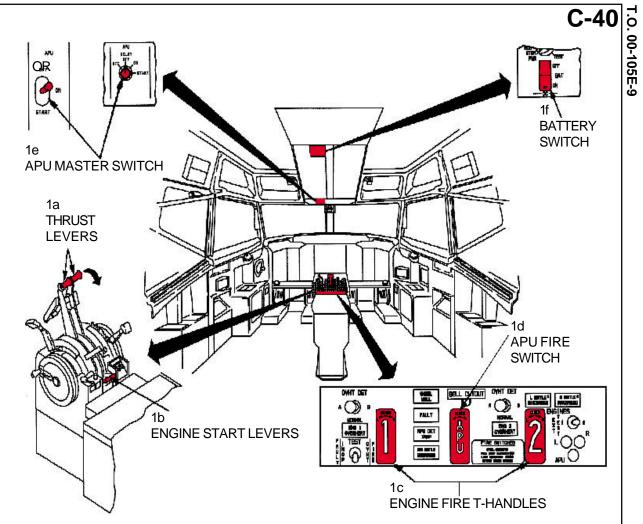
When passenger and service doors are opened from outside, chutes will automatically deploy.

- a. Push in top center panel on overwing escape hatches, located on both fuselage sides. Push hatch inward and upward.
- Pull handle on forward and aft entry doors, located left side of fuselage, outward and rotate clockwise. Pull doors outward.
- c. Pull handle on right forward and aft service doors, outward and rotate counterclockwise. Pull doors outward.
- 2. PILOT'S SLIDING WINDOW (RH & LH) CARGO AND RH ONLY PASSENGER AIRCRAFT
- a. To open window from outside: push in external access door.
- b. Pull external release handle and slide window open.
- 3. CARGO DOOR OPERATION (IF INSTALLED)
- a. To open cargo door 1, unlock the external door handle.
- b. Verify unlocked light is illuminated.
- c. Hold the UP TO CANOPY switch in position until door motion stops.
- 4. CUT-IN
- a. Cut into fuselage as the last resort. Metal cutting portable power equipement is required. Use caution when cutting due to passenger location in relation to cutting location.



ENGINE SHUTDOWN

- 1. ENGINE SHUTDOWN
- a. Retard thrust levers, located on pilot's center console, to RETARD position.
- b. Retard engine start levers, located on pilot's console, to CUT OFF position.
- c. In case of engine fire, pull appropriate engine fire T-handles, located on center console forward of thrust levers. Turn right or left to discharge agent. If not illuminated, push and hold the button under the switch to release.
- d. In case of APU fire, pull the APU fire T-handle, located on center console forward of thrust levers. Turn right or left to discharge agent.
- e. Place APU master switch up to OFF position OR OFF position. (Switch type can vary.)
- f. Lift guard and place battery switch, located on pilot's center overhead panel, to OFF position.



AIRCREW EXTRACTION

1. AIRCREW EXTRACTION

NOTE:

Due to the possibilty of several configurations for seating and cargo, the following seat arrangements may or may not be encountered. The flight deck configuration is fixed with two seats. There is no flight engineer seat. If seat tracks are not damaged during crash landing use adjustable seat control handles to retract seats to aft position.

- a. FLIGHTDECK SEATS Unlatch lap belt and remove shoulder harness from the pilot and co-pilot. Use horizontal adjustment handle on pilot's and copilot's seat, and swivel adjustment handle to position seats.
- Raise armrests to up position and depress armrest adjustment release under pilot's and copilot's armrests, and raise up to position.
- Rotate lap belt release mechanism, remove shoulder harness and crotch strap (as applicable).
- d. CONSOLE SEATS These seats may be equipped with a shoulder harness and lap belt. Unlatch restraints as necessary to free occupants.
- e. PASSENGER'S SEATS Passengers seats are equipped with lap belts only. Lift center latch connecting both sides of belt to release occupant.



FLIGHTDECK WITH TWO SEATS

