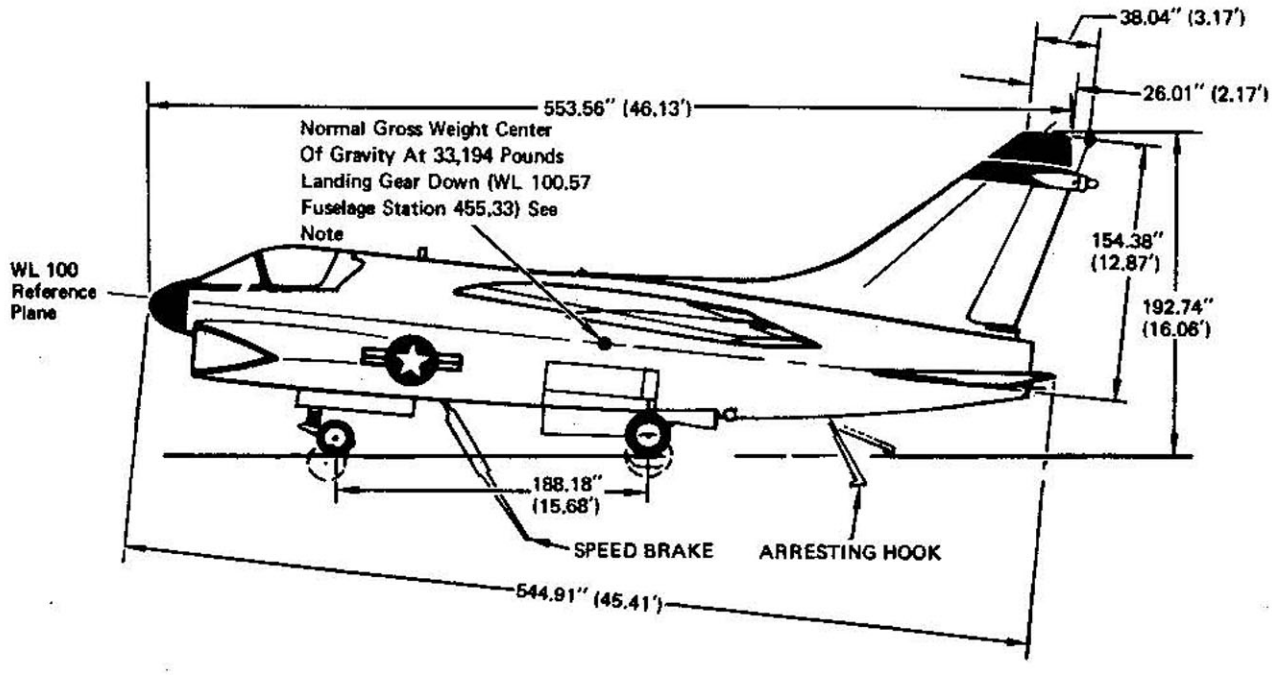
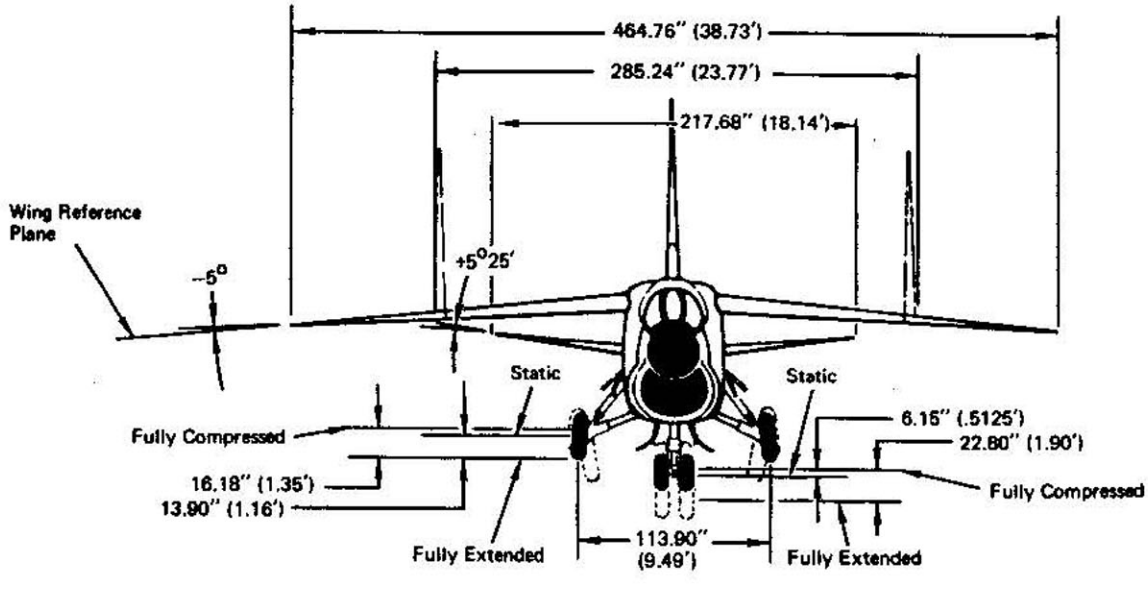


NOTE

Includes fuel, oil, oxygen, pilot, guns, ammunition, and pylon replacement fairings.



01D003-01-05-2S

Figure 1-2. Airplane Dimensions (Sheet 1)

SECTION I

GENERAL INFORMATION

1-1. DESCRIPTION.

1-2. The A-7D is a single-place, light-attack, all-weather airplane incorporating advanced radar, navigation, and weapons systems. Principal recognition features are the sweptback, shoulder-mounted wing with a marked degree of negative dihedral, unit horizontal tail, low profile fuselage, and retractable tricycle landing gear with steerable nosewheels. Foldable wing outer panels are installed on the right and left side of the wing to facilitate close-quarter parking. A retractable arresting gear is installed on the fuselage aft section. The powerplant, installed in the fuselage aft section, is a TF41-A-1 turbofan engine capable of developing 14,250 pounds of thrust. Fuel tanks are installed in the fuselage midsection and an integral fuel tank is provided in the wing center section. External fuel tanks may be mounted on wing pylon stations 1, 3, 6, and 8.

1-3. Armament consists of an M61A1 gun and eight ordnance stations. Three ordnance stations on each side of the wing center section and one station on each side of the fuselage are provided for mounting weapons. Flight controls consist of leading and trailing edge flaps, ailerons, and spoiler/deflectors attached to the wing; a speed brake attached to the bottom of the fuselage midsection; and a unit horizontal tail, and rudder attached to the empennage.

1-4. ARRANGEMENT. (See figure 1-1.)

1-5. The A-7D fuselage is divided into three major sections: the fuselage forward section, the fuselage midsection, and the fuselage aft section. The wing is attached to the fuselage midsection. A unit horizontal tail is attached to the fuselage aft section, and the vertical stabilizer, forming an integral part of the fuselage, is mounted on the upper portions of the fuselage aft section. Major components of the fuselage forward section are the nose radome, laser target detector pod (airplanes after T.O. 1A-7D-820), nose landing gear, M61A1 gun, liquid oxygen converter, ammunition drum, air-conditioning package, air refueling probe (airplanes through AF69-6196), emergency power package, and cockpit. Major components of the fuselage midsection are avionic compartments, main landing gear, speed brake, air refueling receptacle (airplanes AF69-6197 and subsequent), and fuselage fuel tanks. Major components of the fuselage aft section are the powerplant, battery, arresting gear, strike camera, unit horizontal tail control installation, and bleed air manifold. Major components of the vertical stabilizer are the rudder, UHF-IFF antenna, ECM antenna, ILS antenna, and rudder power control package. The wing consists of a center section and two foldable outer panels. Major components of the wing center section are leading and trailing edge flaps, spoiler/deflectors, and an integral fuel tank. Ailerons and leading edge flaps are attached to each wing outer panel, and the remote indicating compass transmitter is located in the right wing outer panel.

1-6. PRINCIPAL DIMENSIONS. (See figure 1-2.)

1-7. Principal airplane dimensions are taken with airplane in level flight position and nosewheel on the ground.

1-8. AIRPLANE STATIONS AND FRAMES. (See figure 1-3.)

1-9. The zero reference station for the fuselage is 181.90 inches forward of the nose radome. To determine the true location in inches from the nose of the airplane, subtract 181.90 inches from the fuselage station reference number. Wing stations are measured from the center of the fuselage, which is wing station 0, to the outer limits of each outer panel. Unit horizontal tail stations are measured from the fuselage attaching point to the outer limits of the UHT. Vertical fuselage reference stations are indicated by waterline stations. Waterline station 100 is an imaginary line through the center of the fuselage.

1-10. AIRPLANE WALKWAYS. (See figure 1-4.)

1-11. Designated areas of the wing center section, top of the fuselage midsection and aft section, and unit horizontal tail (UHT) may be used as walkways. The UHT may be used to climb on top of the aft fuselage. On airplanes AF69-6244 and subsequent, the UHT walkway is coated with MIL-W-5044, Type II walkway material for skin surface protection. In all other areas, place clean rubber mats on walkways to prevent damage to skin surface. If mats are not available, wear rubber sole shoes that are free of foreign materials when walking on walkways. Refer to T.O. 1A-7D-3 for application of walkway material on UHT.

GENERAL

Wingspan	38.73 Ft.
Wingspan, folded	23.77 Ft.
Length, overall	46.13 Ft
Main wheel thread	9.49 Ft
Airplane gross weight	33,194*
Tire size	
Main wheels	28 X 9.0 – 14
Nose wheels	22 X 5.5 – 12

FUSELAGE

Height, basic outside	7.20 Ft
Width, basic outside	4.88 Ft
Length	44.18 Ft

WING

Type	High
Airfoil section at root	NACA 65A007
Airfoil section at tip	NACA 65A007
Chord at root	15.49 Ft
Chord at tip	3.86 Ft.
Incidence	-1°
Dihedral	-5°
Aspect ratio 0.25	4.0
Sweepback of 0.25 chord line	35°

AILERONS

Type	Plain, sealed
Span	6.24 Ft
Chord, percent wing chord/Ft	
Inboard end	25/2.14
Outboard end	25/1.26
Maximum deflection	±25

UNIT HORIZONTAL TAIL

Span	18.14 Ft
Chord (MGC) at 3.40 Ft from Centerline	6.12 Ft
Airfoil section	
Root	NACA 65A006
Tip	NACA 65A004
Maximum deflection	
Leading edge up	6° 45′
Leading edge down	26° 30′
Sweepback of 0.25 chord line	45°
Dihedral	5° 25′

TAIL (VERTICAL)

Span	12.86 Ft
Chord (MGC)	10.20 Ft
Airfoil section	
Root	NACA 65A005.2 (Mod)
Tip	NACA 65A004 (Mod)
Sweepback of 0.25 chord line	44.28°

RUDDER

Type	Plain, sealed
Chord, average	2.12 Ft
Maximum deflection	
Clean condition	±6°
Takeoff and landing	±24°

HIGH LIFT AND DRAG INCREASING DEVICES

Wing trailing edge flap	
Type	Single, slotted
Span	9.20 Ft
Chord, percent of wing chord	22.55
Maximum deflection	40°

LEADING EDGE FLAP

Span	
Inboard	11.99 Ft
Outboard	10.55 Ft
Chord, percent of wing chord	
Inboard	12
Outboard	12
Maximum deflection	**35° †26°

SPOILER–DEFLECTOR

Location, Percent of semispan	
Inboard end	28.94
Outboard end	43.46
Spoiler chord, percent of Wing chord	
Inboard end	6.92
Outboard end	7.71
Maximum deflection	60°
Deflector, percent of wing Chord	
Inboard end	5.07
Outboard end	5.88
Maximum deflection	30°

SPEED BRAKE

Maximum deflection	60°

AREAS

Wing	375 Sq Ft
Wing, trailing edge flap, each	21.74 Sq Ft
Leading edge flap	
Inboard section	18.36 Sq Ft
Outboard section	18.88 Sq Ft
Ailerons	19.94 Sq Ft
Spoiler	4.60 Sq Ft
Deflector	3.44 Sq Ft
Vertical stabilizer	111.20 Sq Ft
Rudder	15.04 Sq Ft
Unit horizontal tail	56.39 Sq Ft
Speed brake	26.00 Sq Ft

*Includes fuel, oil, oxygen, pilot, guns, ammunition, and pylon replacement fairings

**Airplanes through AF73-998

†Airplanes AF73-999 and subsequent

010034-12-74

Figure 1-2. Airplane Dimensions (Sheet 2)

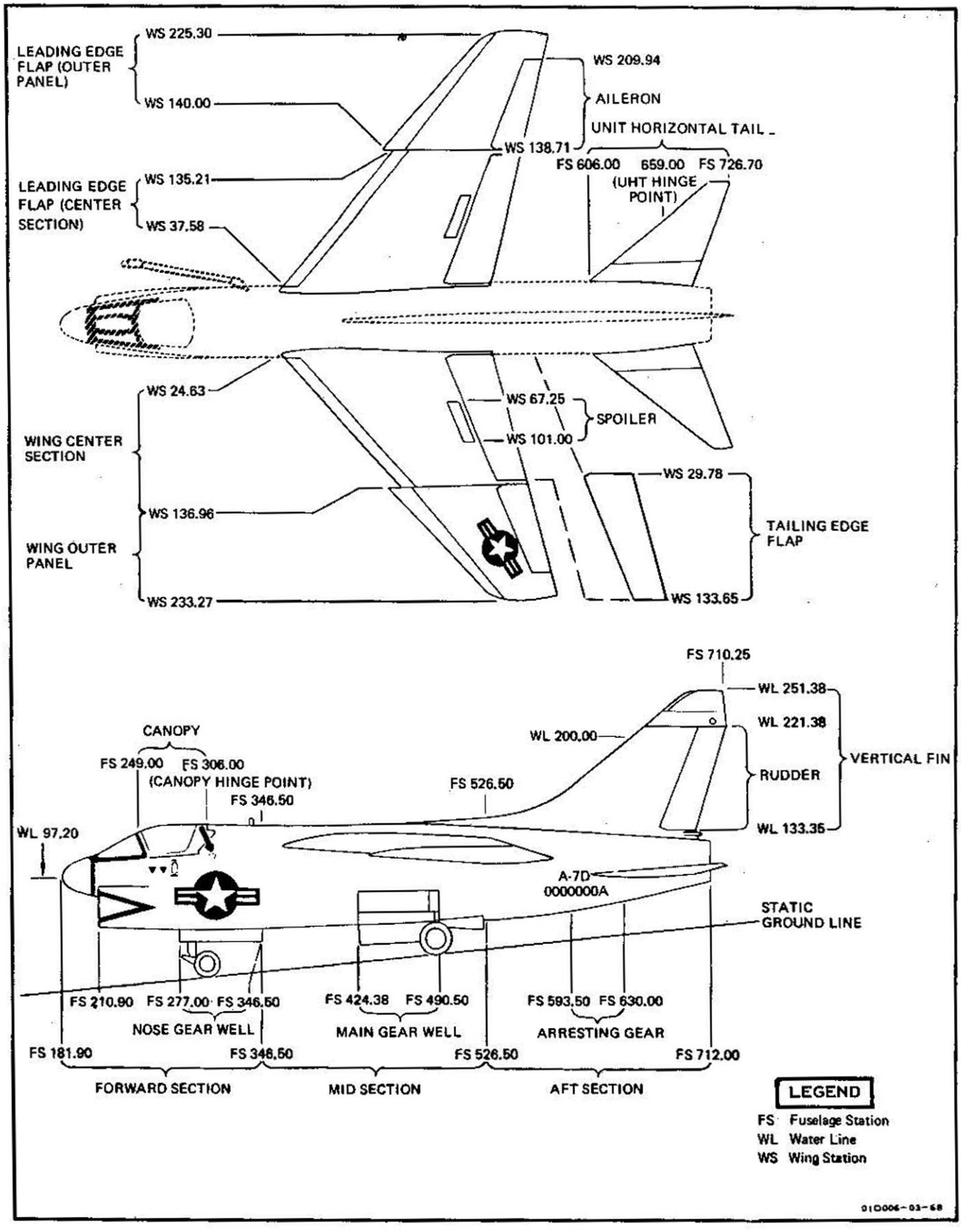


Figure 1-3. Airplane Stations and Frames

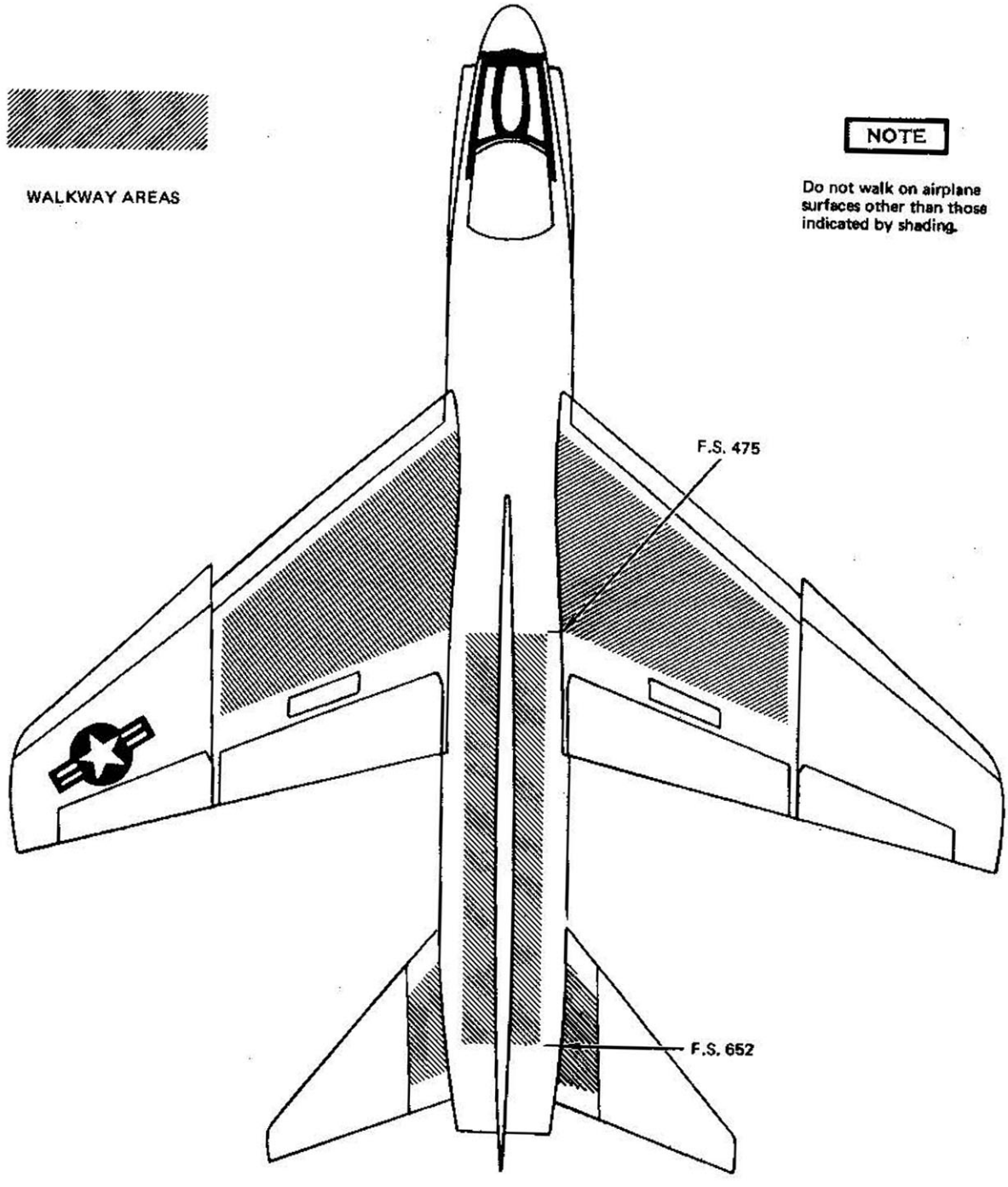


Figure 1-4. Airplane Walkways

1-12. ACCESS PANELS. (See figures 1-5 and 1-6 through 1-14.)

1-13. Access panels are designated numerically, depending on location of the panel on the airplane (figure 1-5). Certain access panels must be installed to prevent structural damage to the airplane when performing various maintenance or ground handling tasks. Figures 1-6 through 1-14 locate and identify all panels, including those that are subject to removal restrictions. Table 1-1 provides a listing, by panel number, of all restricted panels and conditions when they must be installed. Access panels which have armor plate attached are also identified and must be removed with care to prevent damage to the panel and armor plate or possible injury to personnel.

Table 1-1. Access Panel Restrictions

General

When the following access panel is removed, screws must be installed in the same holes from which they were removed to ensure normal magnetic environment. Failure to do this may result in compass errors.

4131-1

CAUTION

To prevent structural damage to airplane, the following access panels shall be installed (with all fasteners) during applicable operation or condition.

Static Condition

1222-5, 1222-6, 1222-6-1, 1222-6-3	or	2212-6, 2212-10
5122-3 or 5122-4 or 5122-5		
6122-3 or 6122-4 or 6122-5		
6222-1	or	6222-3

Table 1-1. Access Panel Restrictions (continued)

If 6122-2 is to be removed, 5122-6[2] and any two of 6122-3, -4, or -5 panels must be installed.

If 5122-6[2] is to be removed, 6122-2 and any two of 5122-3, -4, or -5 panels must be installed.

Canopy Counterbalance Cylinder

The following access panels shall be installed whenever the cylinder is pressurized.

1122-3	or	1121-4[1], 1121-9[2], and 1121-3 or 2121-3

Airplane Outdoors

The following access panels shall be installed if airplane may be subjected to winds of 15 knots or greater.

1123-1	or	2123-4[1], 2123-9[2], 2123-11[1]
1222-8, 1222-8-1, 1222-9, 1222-10	or	1222-5, 1222-6, 1222-6-1, 1222-6-3, 1222-11
2212-6, 2212-10	or	2222-4
6222-1	or	6222-3
5122-4, 5122-5, 5122-6[2], 5132-1, 5133-1, 6122-4, 6122-5, 6132-1, 6133-1		

Table 1-1. Access Panel Restrictions (continued)

Wingfold Operation

3112-3
4111-2

Taxiing

Same restrictions apply as for engine operation except 2212-6 must be installed.

M61A1 Gun Firing

1123-1
1123-3
1123-4[1]
1212-3
1213-4
1213-6
1213-8
1221-1
1222-4
1222-5
1222-8
1222-8-1
1222-9
1222-10
1222-11
2212-6
2212-10
5122-4
5122-5

Table 1-1. Access Panel Restrictions (continued)

5122-6[2]
5132-1
5133-1
6122-4
6122-5
6132-1
6133-1
6222-1 or 6222-3

Towing

Refer to table 2-1.

Jacking

Refer to table 2-3.

Hoisting

Refer to table 2-7.

Engine Operation

Refer to table 2-9.

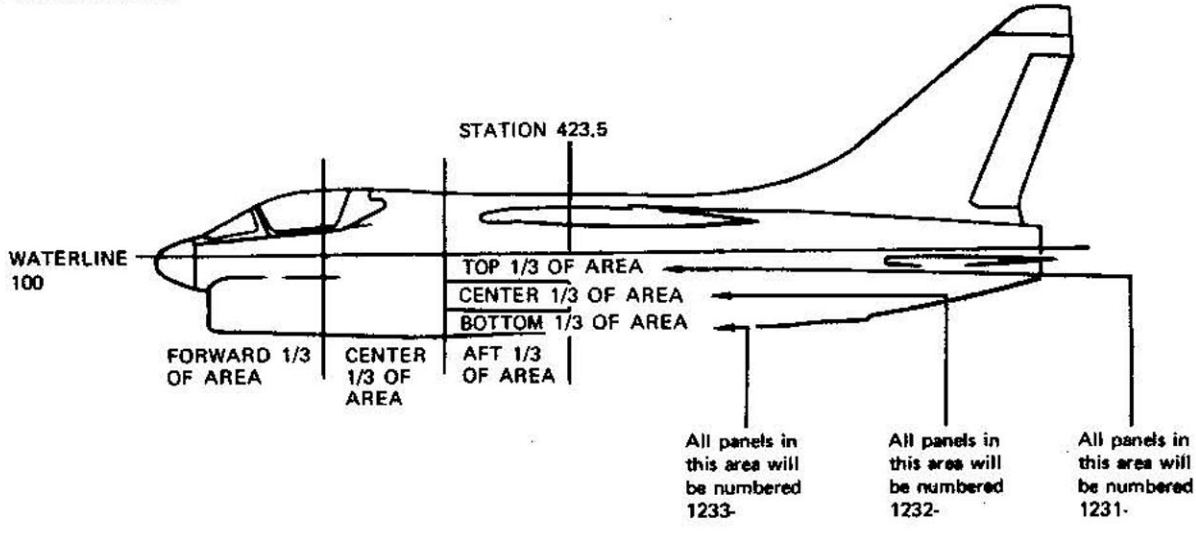
[1]Airplanes through AF69-6196.
[2]Airplanes AF69-6197 and subsequent.

ACCESS DOOR AND PANEL IDENTIFICATION

The numbers assigned to access doors and panels are significant in determining the location of panels and doors. The following code is used.

EXAMPLE: 1 2 2 2–2–1

- LOCATION REFERENCE
- WATERLINE REFERENCE
- HORIZONTAL LOCATION REFERENCE
- VERTICAL LOCATION REFERENCE
- NUMBER OF DOOR IN WORK AREA
- DOOR WITHIN A DOOR



GENERAL LOCATION

FIRST DIGIT

1	LEFT FUSELAGE (NOSE TO STATION 423.5)
2	RIGHT FUSELAGE (NOSE TO STATION 423.5)
3	LEFT WING
4	RIGHT WING
5	LEFT FUSELAGE (STATION 423.5 TO TAIL)
6	RIGHT FUSELAGE (STATION 423.5 TO TAIL)
7	LEFT UHT
8	RIGHT UHT
9	VERTICAL STABILIZER
10	PROTRUSION (PRECEDED BY L&R FOR LEFT AND RIGHT OR T&B FOR TOP AND BOTTOM, OR F&A FOR FORWARD AND AFT, WHEN REQUIRED)

SECOND DIGIT

1	ABOVE WATERLINE 100 (AIRPLANE CENTERLINE) AND TOP OF WING
2	BELOW WATERLINE 100 (AIRPLANE CENTERLINE) AND BOTTOM OF WING

THIRD DIGIT

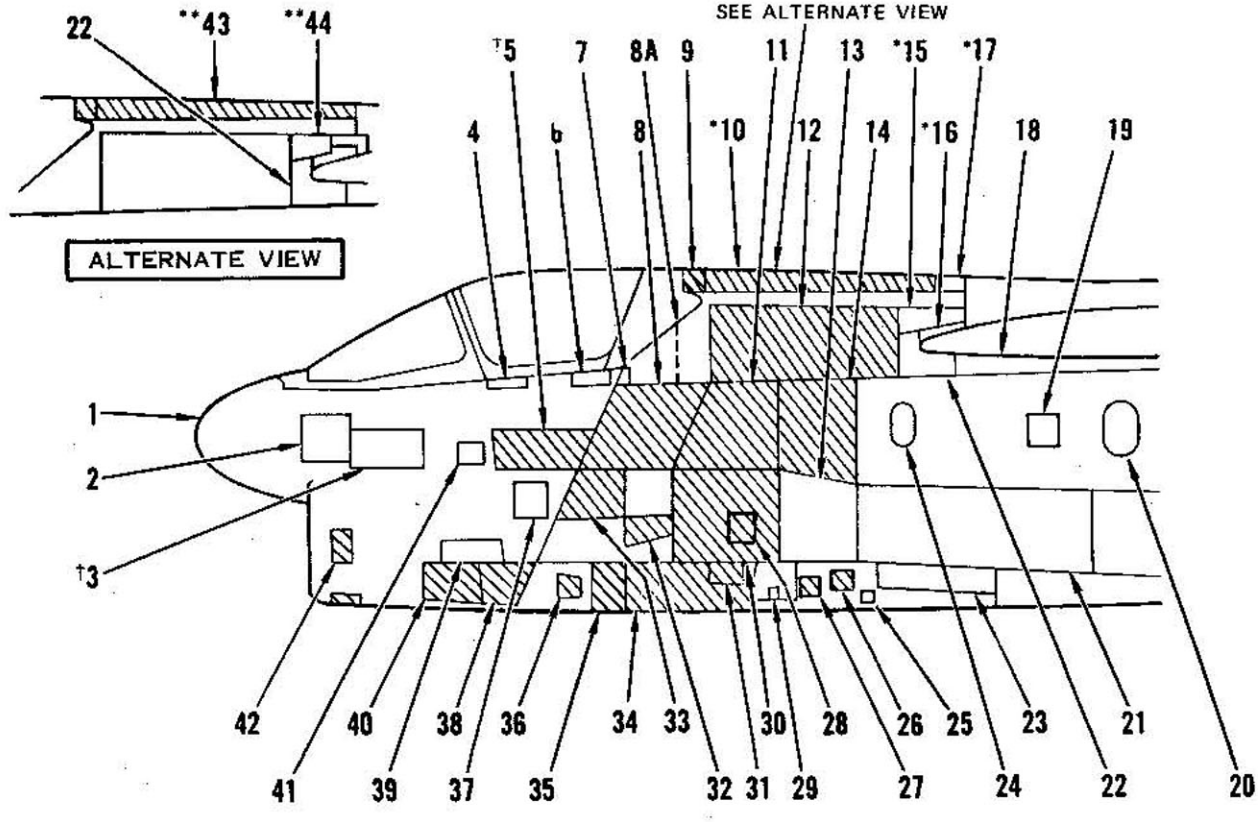
1	FORWARD 1/3 OF AREA
2	CENTER 1/3 OF AREA
3	AFT 1/3 OF AREA

FOURTH DIGIT

1	TOP 1/3 OF AREA OR RIGHT WING
2	CENTER 1/3 OF AREA OR LEFT WING
3	BOTTOM 1/3 OF AREA OR CENTER WING

01D196-02-76

Figure 1-5. Access Doors and Panels Identification



NOTE

Shaded areas indicate panels that are subject to removal restrictions. Refer to table 1-1 for applicable restrictions.

*Airplanes through AF69-6196

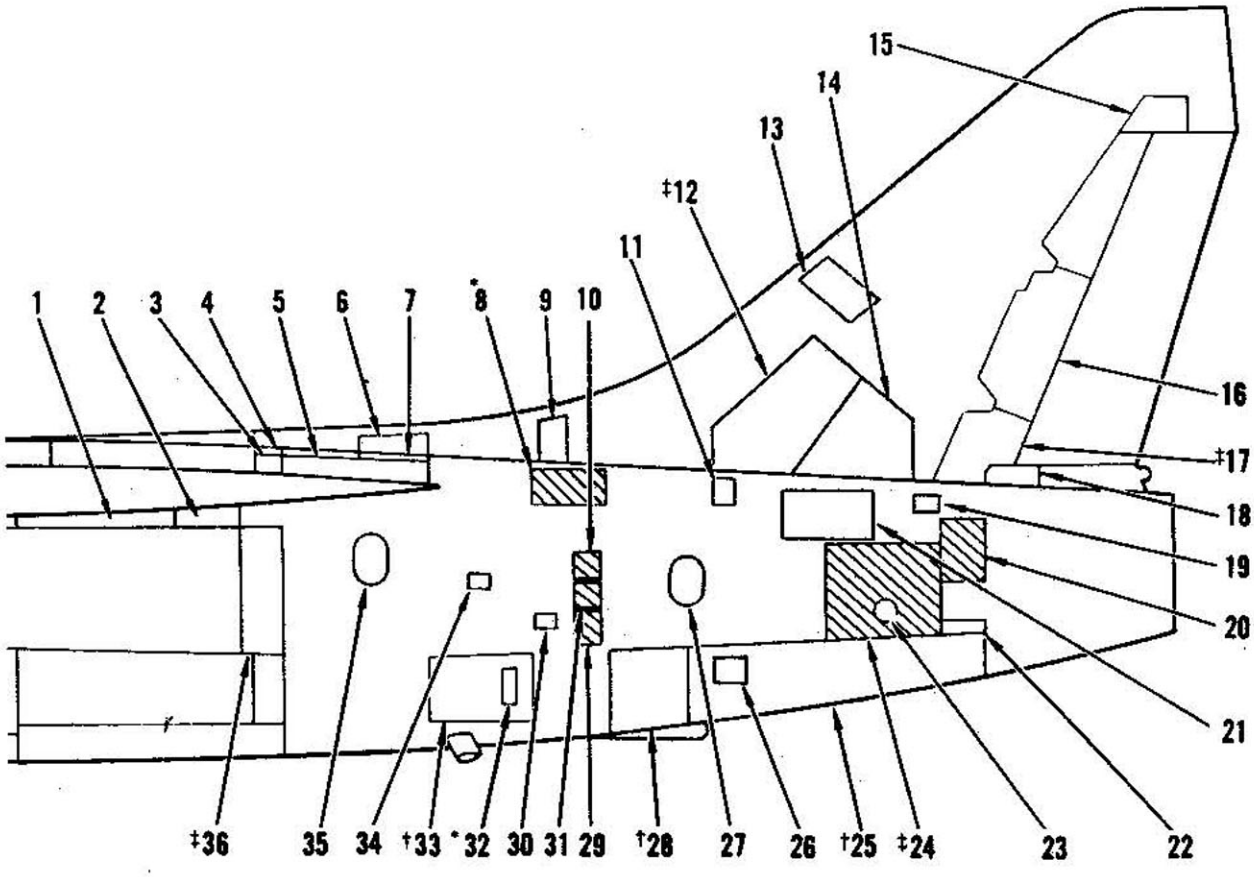
**Airplanes AF69-6197 and subsequent

†These access panels have armor plate attached. Be prepared for added weight when removing.

INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	F10211-1	Nose Radome	23	1233-1	Cheek Bay Access
2	1211-1	Radar Receiver Access	24	1133-1	Forward Tank Access
†3	1211-2	Rudder Pedal Access	25	1233-5	External AC Electrical Receptacle
4	1113-1	Canopy Lock Access	26	1222-11	Hydraulic Filter Access
†5	1221-1	Console Access	27	1222-6-3	Ammo Loading Access
6	1122-1	Canopy Lock Access	28	1222-8-1	Gun Clearing Sector Access
7	1122-4	Canopy Access	29	1222-6-2	Gun Drive Access
8	1123-1	Controls Access	30	1222-8	Gun Access
8A	1112-1	Radar Fault Isolator	31	1222-6-1	Gun Drive Access
9	1122-3	Canopy Counterbalance Access	32	1222-9	Gun Mount Access
*10	1121-4	Ammo Drum Access	33	1222-10	Systems Access
11	1123-4	Equipment Access	34	1222-6	Gun Removal Access
12	1121-3	Systems Access	35	1222-5	Gun Removal Access
13	1222-3	Lox Access	36	1222-4	Gun Barrel Access
14	1123-3	Equipment Access	37	1222-12	Step Access
*15	1121-6	Systems Access	38	1213-6	Gun Access
*16	1121-7	Systems Access	39	1213-14	Step Access
*17	1121-5	Systems Access	40	1213-8	Barrel Removal Access
18	1132-1	Controls Access	41	1211-4	Step Access
19	1133-3	Fuselage Pylon Access	42	1212-3	Antenna Access
20	1133-2	Forward Tank Access	**43	1121-9	Ammo Drum Access
21	1232-1	Avionics Access	**44	1121-10	Systems Access
22	1121-8	Systems Access			

01D052-11-77

Figure 1-6. Left Forward Fuselage Access Panels



INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	5112-1	Controls Access	*19	5131-2	UHT Yoke Pivot Pin Access
2	5112-2	Controls Access	20	5132-1	UHT Removal Access
3	5111-4	Controls Access	21	5131-1	Engine Removal Access
4	5111-1	Controls Access	22	5231-1	UHT Removal Access
5	5111-2	Systems Access	23	5133-1-1	Electrical Servo Access
6	5111-3	Controls Access	‡24	5133-1	Elevator Servo Access
7	5111-5	Systems Access	†25	5222-3	Engine Removal Access
*8	5122-6	PC No. 3 Reservoir Access	26	5222-3-3	Engine Oil Inspection Access
9	5121-2	Controls Access	27	5222-4	Engine Oil Filler Access
10	5122-5	Engine Access	†28	5222-2	Engine Access
11	5121-1	Controls Access	29	5122-3	Engine Access
‡12	9113-2	Controls Access	30	– – –	PC No. 3 Hyd Filter (Boost Pump)
13	9112-1	Antenna Coupling Access	31	5122-4	Engine Access
14	9123-1	Controls Access	*32	5222-1-1	Fuel Filter Inspection Access
15	9131-1	Formation Light Access	†33	5222-1	Engine Access
16	9132-1	Controls Access	34	– – –	PC No. 3 Hyd Filter (System)
‡17	9133-1	Controls Access	35	5113-2	Aft Fuel Tank Access
18	A105 133-1-1	Electrical Disconnect Access	‡36	5113-1	Roll Control Access

*Airplanes AF69-6197 and subsequent

†These access panels have armor plate attached. Be prepared for added weight when removing.

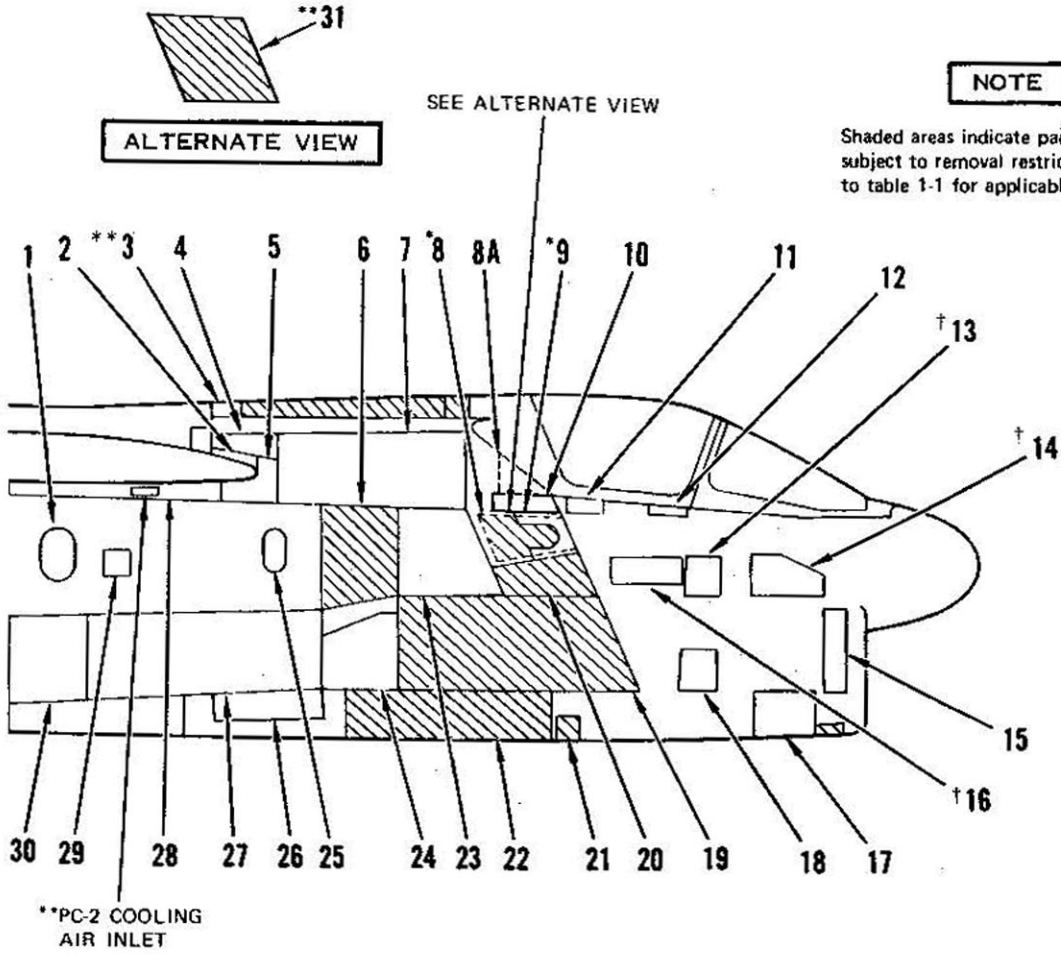
‡On airplanes AF69-6197 and subsequent these access panels have armor plate attached. Be prepared for added weight when removing.

NOTE

Shaded areas indicate panels that are subject to removal restrictions. Refer to table 1-1 for applicable restrictions.

01D093-11-77

Figure 1-7. Left Aft Fuselage Access Panels



RIGHT FORWARD FUSELAGE

INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	2133-2	Forward Fuel Tank Access	17	2212-8	Systems Access
2	2121-7	Wing Removal Access	18	2212-5	Systems Access
**3	2121-9	Systems Access	19	2222-4	Air-Conditioner Installation Access
4	2121-6	Systems Access			
5	2121-8	Systems Access	*20	2123-4	A/R Probe Actuator Access
6	2123-3	Equipment Access	21	2212-10	Nose Gear Trunnion Access
7	2121-3	Ammo Drum Access	22	2212-6	Air-Conditioner Access
*8	2123-11	Hydraulic Access	23	2123-6	Equipment Access
8A	2112-1	Instrument Lights Dimming Panel	24	2222-5	Ram Air Turbine Access
*9	2123-1	Hydraulic Equipment Access	25	2133-1	Forward Fuel Tank Access
10	2122-5	Electrical Access	26	2233-1	Cheek Bay Access
11	2122-1	Canopy Lock Access	27	2232-1	Avionics Access
12	2113-2	Canopy Lock Access	28	2132-1	Controls Access
†13	2211-3	Controls Access	29	2133-3	Fuselage Pylon Access
†14	2211-2	Rudder Pedal Access	30	2232-2	Sump Fuel Tank Access
15	2212-4	Antenna Access	**31	2123-9	Controls and Equipment Access
†16	2221-1	Console Access			

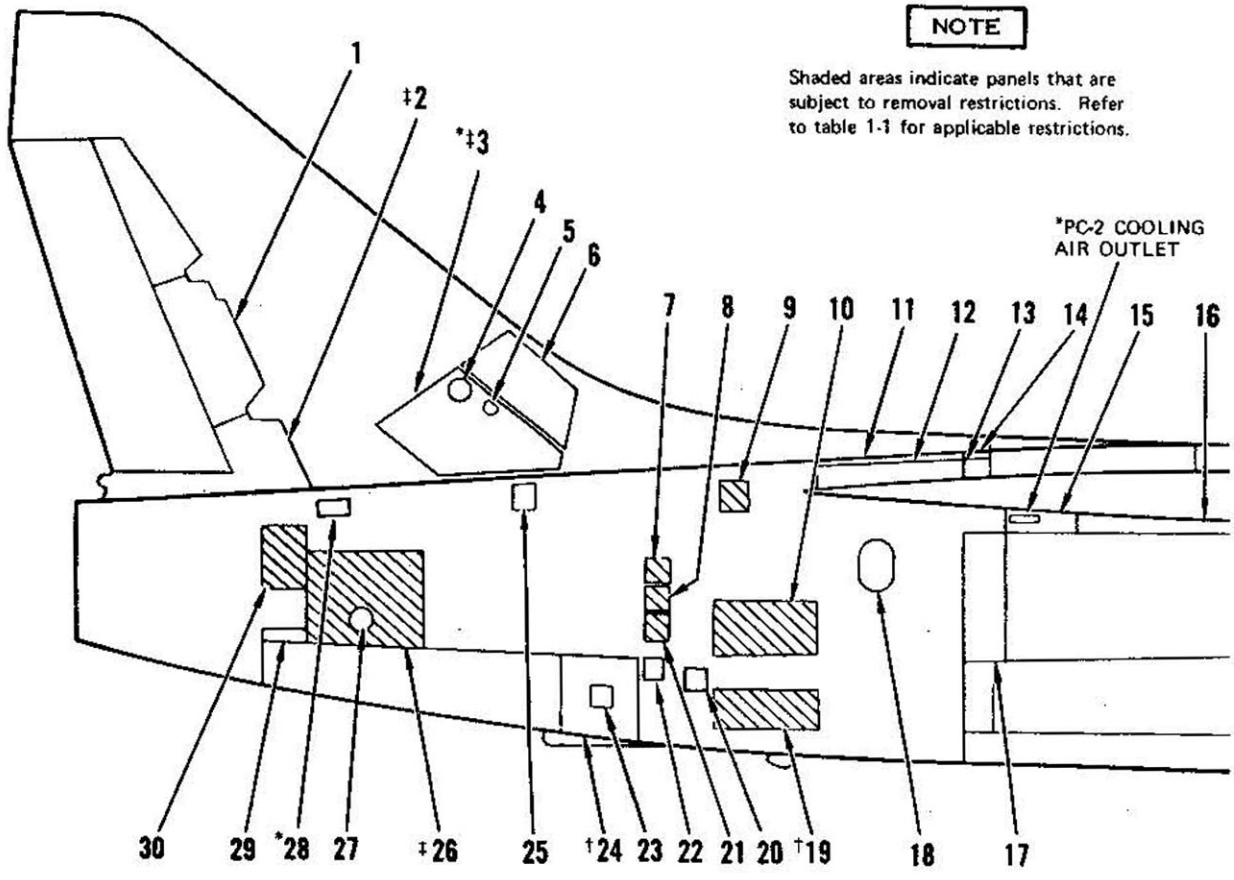
*Airplanes through AF69-6196

**Airplanes AF69-6197 and subsequent

†These access panels have armor plate attached. Be prepared for added weight when removing.

01D094—11—77

Figure 1-8. Right Forward Fuselage Access Panels



INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	9132-2	Controls Access	17	6113-1	Tubing Access
‡2	9133-2	Controls Access	18	6113-2	Aft Fuel Tank Access
*‡3	9113-5	Controls Access	†19	6222-1	Engine Access
**4	9113-3	Damper Servicing Access	20	6221-2	CSD Oil Level Inspection Access
*4	9113-5-1	Damper Servicing Access			
5	9113-4	Damper Inspection Access	21	6122-3	Engine Access
6	9113-1	Controls Access	22	- - -	28 Volts DC External Power Access
7	6122-5	Engine Access			
8	6122-4	Engine Removal Access	23	6222-2-1	Starter Oil Filler Access
9	6122-2	Engine Access	†24	6222-2	Engine Access
10	6222-3	Battery Access	25	6121-1	Controls Access
11	6111-4	Systems Access	‡26	6133-1	Elevator Servo Access
12	6111-2	Controls Access	27	6133-1-1	Electrical Servo Access
13	6111-3	Systems Access	*28	6131-1	UHT Yoke Pivot Pin Access
14	6111-1	Controls Access	29	6231-1	Horizontal Tail Access
15	6112-2	Controls Access	30	6132-1	Horizontal Tail Access
16	6112-1	Controls Access			

*Airplanes AF69-6197 and subsequent.

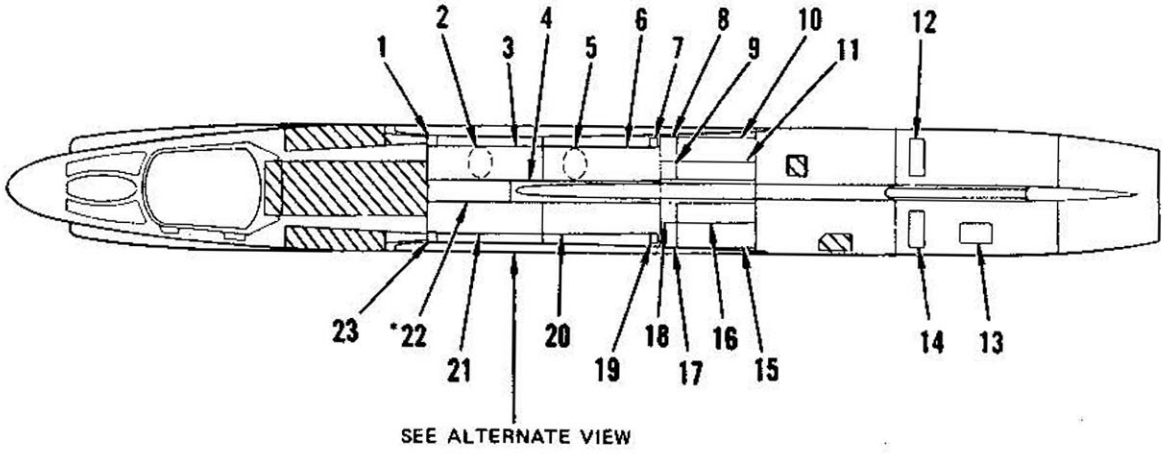
**Airplanes through AF69-6196.

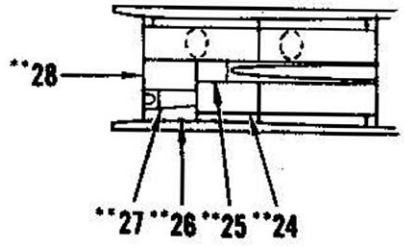
†These access panels have armor plate attached. Be prepared for added weight when removing.

‡On airplanes AF69-6197 and subsequent these access panels have armor plate attached. Be prepared for added weight when removing.

01D095-11-77

Figure 1-9. Right Aft Fuselage Access Panels





ALTERNATE VIEW

TOP OF FUSELAGE

INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	4113-10	Right Forward Hoist Access	15	5111-2	Systems Access
2	4113-11-1	Fuel Tank Access	16	5111-5	Systems Access
3	4113-11	Air Conditioning Lines Access	17	5111-4	Controls Access
4.	10123-1	Controls Access	18	5111-1	Controls Access
5	4123-1-1	Fuel Tank Access	19	3133-5	Left Rear Hoist Access
6	4123-1	Air Conditioning Lines Access	20	3123-1	Fuel Tank Access
7	4133-5	Right Rear Hoist Access	21	3113-11	Fuel Tank Access
8	6111-3	Controls Access	*22	10113-1	Controls Access
9	6111-1	Controls Access	23	3113-10	Left Forward Hoist Access
10	6111-2	Controls Access	**24	3113-11	Fuel Tank Access
11	6111-4	Systems Access	**25	10113-2	Controls Access
12	6121-1	Controls Access	**26	3113-12	IFR Receptacle Access
13	5131-1	Engine Removal Access	**27	3113-13	IFR Receptacle Access
14	5121-1	Controls Access	**28	10113-1	Controls Access

*Airplanes through AF69-6196

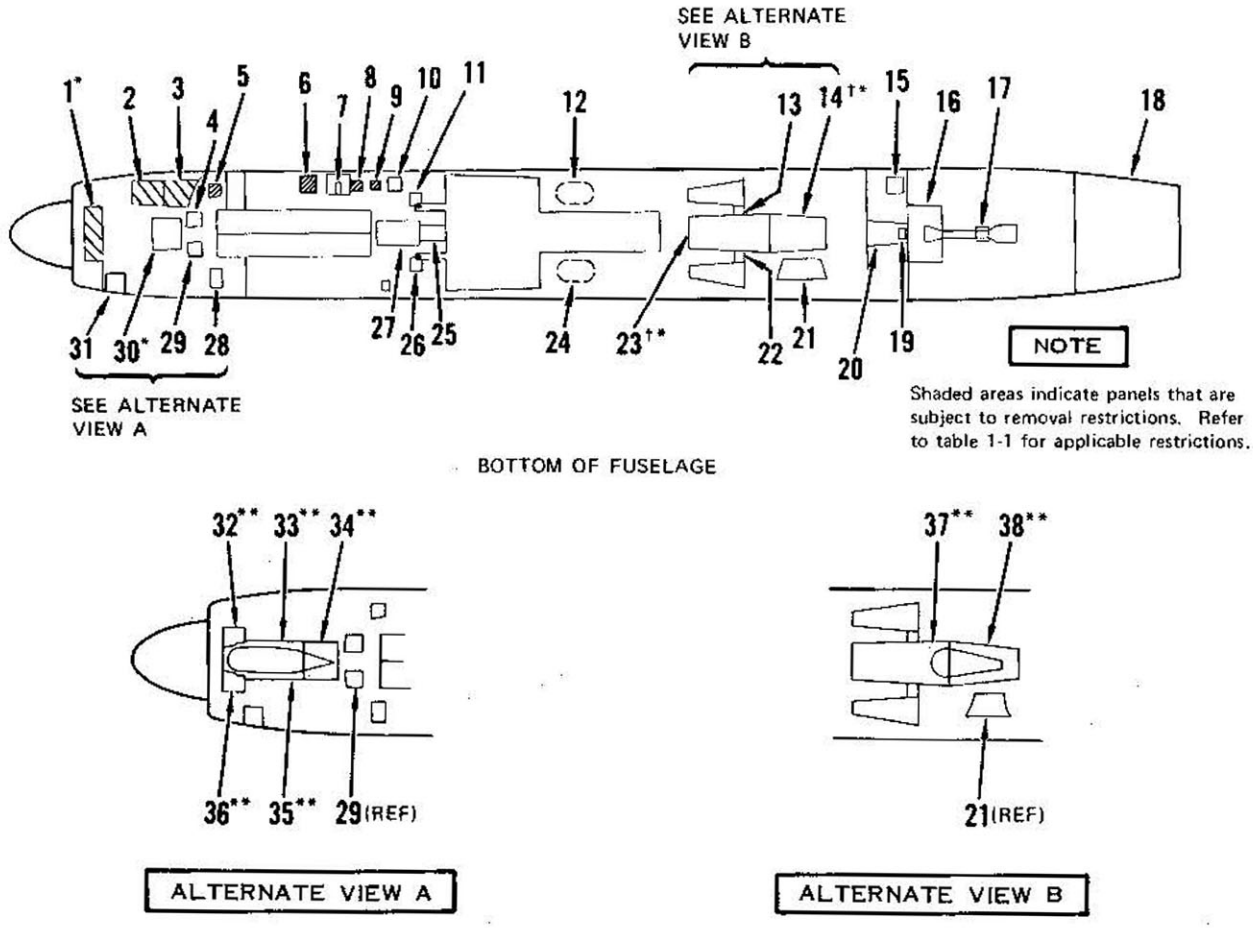
**Airplanes AF69 6197 and subsequent

NOTE

Shaded areas indicate panels that are subject to removal restrictions. Refer to table 1-1 for applicable restrictions.

01D096-09-74

Figure 1-10. Top Fuselage Access Panels



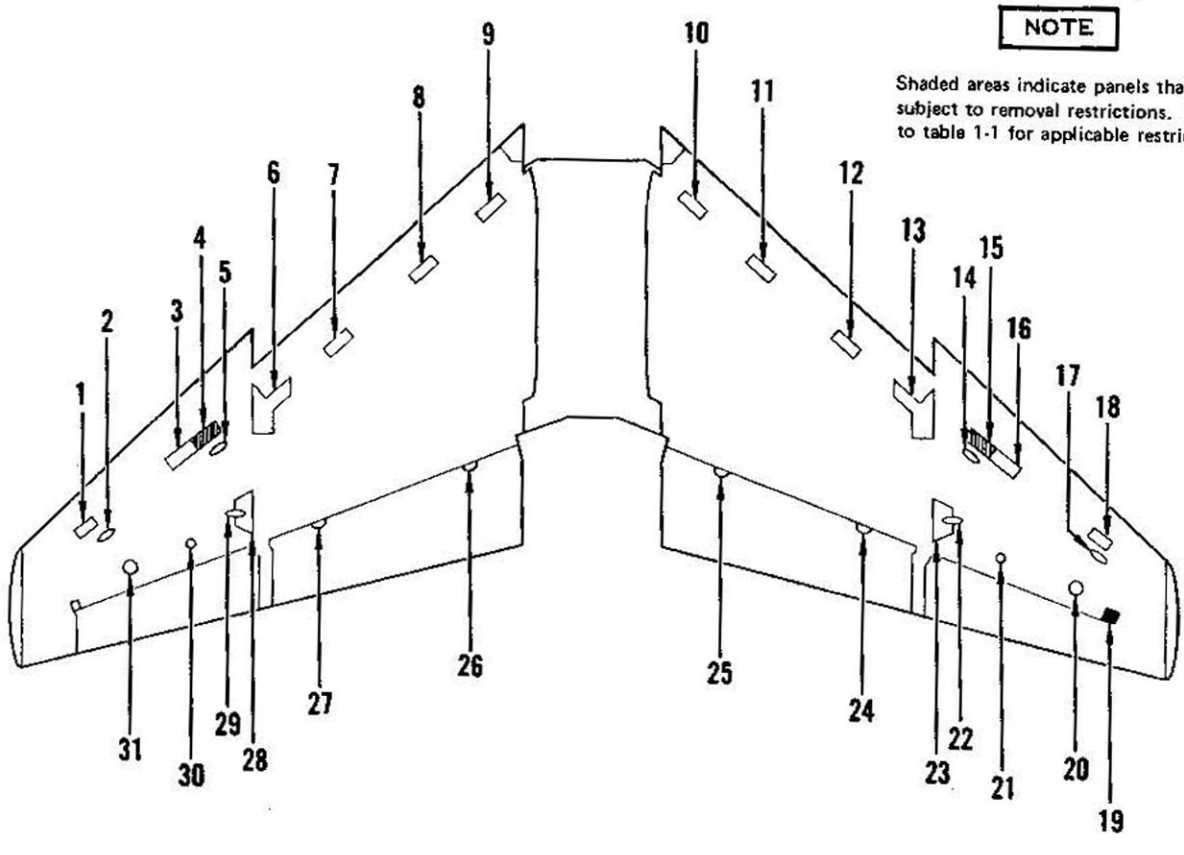
ALTERNATE VIEW A

ALTERNATE VIEW B

INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1*	1213-4	Antenna Access	20	5223-2	Engine Access
2	1213-8	Gun Access	21	6223-1	Camera Compartment Access
3	1213-6	Gun Access	22	6213-2	Lug Pin Access
4	1213-9	Antenna Access	23†*	5213-3	Fuel Tank Access
5	1222-4	Gun Barrel Access	24	6211-1	Fuel Cell Access
6	1222-6-1	Gun Drive Access	25	1233-4	Anticollision Light Access
7	1222-6-2	Gun Drive Access	26	2233-3	Speed Brake Hinge Access
8	1222-6-3	Ammo Loading Access	27	1233-2	Radome Access
9	1222-11	Hydraulic Filter Access	28	2212-7	Hydraulic Access
10	1233-5	External AC Electrical Receptacle	29	2213-9	Hydraulic Access
11	1233-3	Speed Brake Hinge Access	30*	1213-7	Antenna Access
12	5211-1	Fuel Cell Access	31	2212-8	Systems Access
13	5213-2	Strut Pin Access	32**	1213-1	Preamplifier, Antenna Access
14†*	5223-1	Engine Access	33**	1213-2	Detector Pod Access
15	5222-2-1	Oil Sampling Access	34**	1213-3	Detector Adapter Access
16	5222-3-1	Oil Filter Access	35**	2213-2	Detector Pod Access
17	5222-3-2	Drain Installation Access	36**	2213-1	Antenna Access
18	A105133-1	Tail Cone	37**	5213-1	Antenna Access
19	5223-2-1	Accumulator Access	38**	5223-3	Engine Access

†These access panels have armor plate attached. Be prepared for added weight when removing.
*Airplanes before T.O. 1A-7D-820.
**Airplanes after T.O. 1A-7D-820.

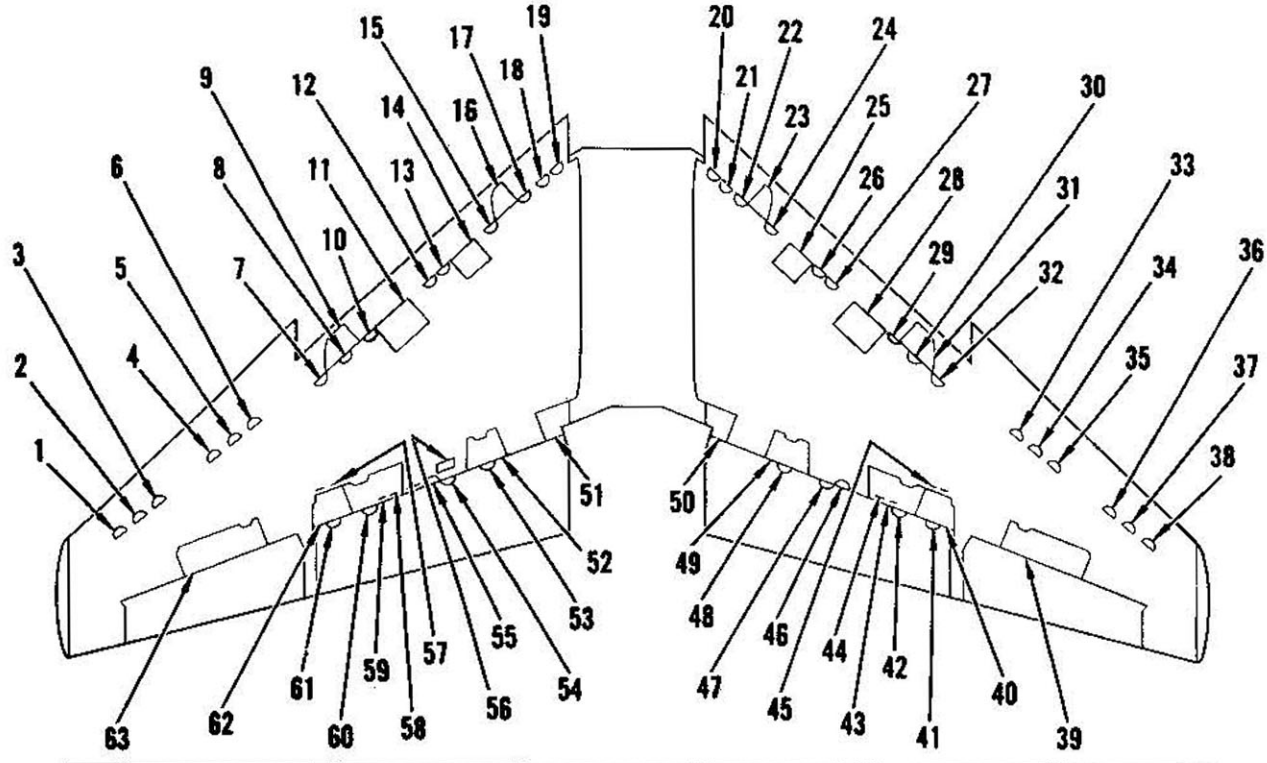
Figure 1-11. Bottom Fuselage Access Panels



INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	3112-1	Actuator Access	18	4111-1	Actuator Access
2	3112-4	Actuator Bolt Access	19	4131-1	Compass Transmitter Access
3	3112-2	Actuator Access	20	4131-3	Outer Panel Access
4	3112-3	Actuator Access	21	4131-4	Outer Panel Access
5	3112-5	Actuator Bolt Access	22	4131-5-1	Aileron Rigging Access
6	3113-1	Electrical Access	23	4131-5	Aileron Rigging Access
7	3113-4	Actuator Access	24	4133-7	Actuator Access
8	3113-6	Hydraulic Access	25	4133-10	Actuator Access
9	3113-9	Actuator Access	26	3133-10	Actuator Access
10	4113-9	Actuator Access	27	3133-7	Actuator Access
11	4113-6	Hydraulic Access	28	3132-4	Aileron Rigging Access
12	4113-4	Actuator Access	29	3132-4-1	Aileron Rigging Access
13	4113-1	Electrical Access	30	3132-3	Outer Panel Access
14	4111-5	Actuator Bolt Access	31	3132-2	Outer Panel Access
15	4111-3	Actuator Access			
16	4111-2	Actuator Access			
17	4111-4	Actuator Bolt Access			

01D098-02-76

Figure 1-12. Top Wing Access Panels

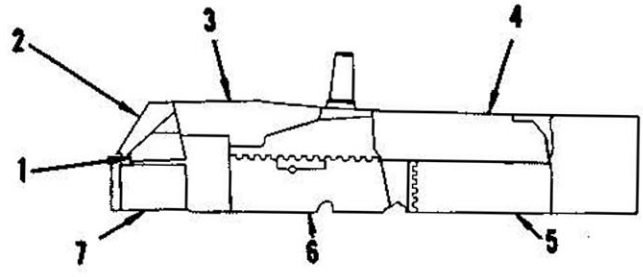


INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE	INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	4211-4	Leading Edge Flap Hinge Pin Access	33	3212-9	Leading Edge Flap Hinge Pin Access
2	4211-5	Leading Edge Flap Hinge Pin Access	34	3212-8	Leading Edge Flap Hinge Pin Access
3	4211-6	Leading Edge Flap Hinge Pin Access	35	3212-7	Leading Edge Flap Hinge Pin Access
4	4211-7	Leading Edge Flap Hinge Pin Access	36	3212-6	Leading Edge Flap Hinge Pin Access
5	4211-8	Leading Edge Flap Hinge Pin Access	37	3212-5	Leading Edge Flap Hinge Pin Access
6	4211-9	Leading Edge Flap Hinge Pin Access	38	3212-4	Leading Edge Flap Hinge Pin Access
7	4213-12	Leading Edge Flap Hinge Pin Access	39	3232-1	Aileron Control Access
8	4213-13	Leading Edge Hinge Pin Access	40	3233-1	Aileron Control Access
9	4213-3	Actuator Access	41	3233-6	Outboard Hinge Pin Access
10	4213-14	Leading Edge Hinge Pin Access	42	3233-8	Inboard Hinge Pin Access
11	4213-5	Electrical Access	43	3233-2	Actuator Access
12	4213-15	Leading Edge Hinge Pin Access	44	3233-12	Actuator Access
13	4213-16	Leading Edge Hinge Pin Access	45	3233-2-1	Ejector Pump Access
14	4213-7	Electrical Access	46	3233-13	Actuator Access
15	4213-17	Leading Edge Hinge Pin Access	47	3233-9	Outboard Hinge Pin Access
16	4213-8	Actuator Access	48	3233-11	Inboard Hinge Pin Access
17	4213-18	Leading Edge Hinge Pin Access	49	3233-3	Actuator Access
18	4213-19	Leading Edge Hinge Pin Access	50	3233-4	Aileron Control Access
19	4213-20	Leading Edge Hinge Pin Access	51	4233-4	Aileron Control Access
20	3213-20	Leading Edge Hinge Pin Access	52	4233-3	Actuator Access
21	3213-19	Leading Edge Hinge Pin Access	53	4233-11	Inboard Hinge Pin Access
22	3213-18	Leading Edge Hinge Pin Access	54	4233-9	Outboard Hinge Pin Access
23	3213-8	Actuator Access	55	4233-6-11	Outboard Hinge Pin Access
24	3213-17	Leading Edge Hinge Pin Access	56	4233-13	Actuator Access
25	3213-7	Electrical Access	57	4233-2-1	Ejector Pump Access
26	3213-16	Leading Edge Hinge Pin Access	58	4233-12	Actuator Access
27	3213-15	Leading Edge Hinge Pin Access	59	4233-2	Actuator Access
28	3213-5	Electrical Access	60	4233-8	Inboard Hinge Pin Access
29	3213-14	Leading Edge Hinge Pin Access	61	4233-6	Outboard Hinge Pin Access
30	3213-13	Leading Edge Hinge Pin Access	62	4233-1	Aileron Control Access
31	3213-3	Actuator Access	63	4231-2	Aileron Power Control Access
32	3213-12	Leading Edge Hinge Pin Access			

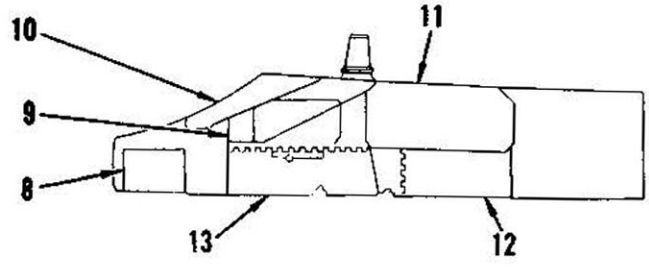
01D099-12-71

Figure 1-13. Bottom Wing Access Panels

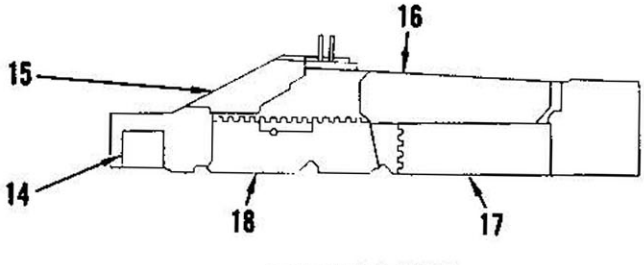
PYLON STATIONS



STATIONS 3 AND 6



STATIONS 2 AND 7



STATIONS 1 AND 8

STATIONS 3 AND 6

INDEX NO.	ACCESS NO.	ACCESS NOMENCLATURE
1	B10213-3	Electrical Receptacle Access (Left Side)
2	B10212-1	Pylon Electrical Disconnect Access
3	B10211-1	MAU-12 Access (Inboard)
3	B10213-2	MAU-12 Access (Outboard)
4	B10231-1	Main Aft Disconnect Access (Inboard)
4	B10233-1	Main Aft Disconnect Access (Outboard)
5	B10231-2	Electrical Access Stores (Inboard)
5	B10233-2	Electrical Access Stores (Outboard)
6	B10223-1	MAU-12 Access (Outboard)
6	B10221-1	MAU-12 Access (Inboard)
7	B10213-1	Electrical Access Stores (Outboard)

STATIONS 2 AND 7

8	B10213-1	Electrical Access Stores (Outboard)
9	B10213-2	MAU-12 Access (Outboard)
9	B10211-1	MAU-12 Access (Inboard)
10	B10212-1	Pylon Electrical Disconnect Access
11	B10233-1	Main Aft Disconnect Access (Outboard)
11	B10231-1	Main Aft Disconnect Access (Inboard)
12	B10233-2	Electrical Access Stores (Outboard)
12	B10231-2	Electrical Access Stores (Inboard)
13	B10223-1	MAU-12 Access (Outboard)
13	B10221-1	MAU-12 Access (Inboard)

STATIONS 1 AND 8

14	B10213-1	Electrical Access Stores (Outboard)
15	B10212-1	Pylon Electrical Disconnect Access
16	B10231-1	Main Aft Disconnect Access (Inboard)
16	B10233-1	Main Aft Disconnect Access (Outboard)
17	B10233-2	Electrical Access Stores (Outboard)
17	B10231-2	Electrical Access Stores (Inboard)
18	B10223-1	MAU-12 Access (Outboard)
18	B10221-1	MAU-12 Access (Inboard)

01D100-09-74

Figure 1-14. Pylon Access Panels

1-14. ARMOR PLATE ARRANGEMENT. (See figure 1-16.)

1-15. Armor plate is provided for protection of the pilot and vital flight sustaining systems. Both ceramic composite and dual hardness steel material are used for armor plate. Ceramic armor plates are installed in the cockpit, fuselage midsection, and engine bay areas. Steel armor plates are installed on the forward pilot's compartment bulkhead, fuselage midsection and aft section, and vertical stabilizer. A functional description of armor plate is provided in the applicable maintenance sections.

1-16. MOVABLE SURFACE HAZARDS. (See figure 1-17.)

1-17. Flight control surfaces, air refueling probe, emergency power package, landing gear, and speed brake areas are potential danger areas when hydraulic power is applied to the airplane. During landing gear operational checkout, only the minimum personnel required to perform the operation shall be in the immediate area of the airplane.

1-18. DANGER AREAS. (See figures 1-18 and 1-19.)

1-19. ENGINE OPERATION HAZARDS. During engine starting, potential danger exists in the area of the starter turbine plane of rotation and adjacent to the starter exhaust. During engine operation, potential engine inlet danger exists in a conical area starting from 5 feet aft of the airplane nose and extending forward at angles of 45° left and right of the airplane centerline, to 25 feet forward of the engine air inlet duct. Engine exhaust danger exists in an area starting at the tailpipe outlet and aft to approximately 100 feet. The exact exhaust temperature range and blast area will vary according to prevailing winds. While the engine is operating, the area in line with the engine turbine wheel plane of rotation and the area adjacent to the bypass air exhaust on the bottom of the engine should be avoided. Ear protection devices are necessary in the immediate area adjacent to the airplane during engine operation. For information related to engine operation danger areas and personnel safety requirements, see figure 1-18.

1-20. RADIATION HAZARDS. For information regarding radiation hazards during ground operation of the AN/APQ-126(V) radar, see figure 1-19.

1-21. AVIONIC EQUIPMENT COOLING REQUIREMENTS.

NOTE

Ambient temperature for avionic equipment operation is defined as the temperature of the air immediately surrounding the exterior of the airplane, not the equipment.

1-22. Operation of airplane avionic equipment heats up the air immediately surrounding the equipment. To prevent the equipment environment from becoming too hot and causing eventual equipment failure, ground operation of all avionic equipment is limited in duration when ambient temperature exceeds a certain range, unless cooling air is provided. A list of airplane avionic equipment with location and method of control is provided in table 1-2. Ground operation of this equipment shall not exceed operating time limits specified for corresponding ambient temperatures and cooling requirements listed in tables 1-3 and 1-4. Table 1-3 is applicable for operation of all avionic equipment except forward looking radar (FLR). Table 1-4 is applicable for operation of the FLR. For connecting ground air-conditioner to airplane, refer to paragraph 1-51.

CAUTION

To prevent induced side loads on load cells and possible damage to airplane resulting from an unevenly seated jack, it is imperative that the airplane remain completely level during all jacking, weighing, and lowering operations.

12. Jack airplane evenly, maintaining level attitutde, until main and nose gear tires are clear of floor.

13. Weigh airplane in accordance with T.O. 1-1B-40 (for airplane being weighed) and T.O. 1A-7D-5.

14. Lower airplane evenly, maintaining level attitude, until load cells are clear of jack pads.

15. Remove jack pads from airplane and load cells from jacks.

16. Remove rope from nose gear and close speed brake circuit breaker CB307.

17. Close access 2232-1.

2-38. HOISTING.

Tools Required

Figure & Index No.	Part Number	Nomenclature	Use and Application
	MIL-M-7404	Maintenance stand B4-A	Gain access to top of airplane.
2-11	216-00210-28 or 216-00210-1[1]	Airplane hoisting sling	Adapt hoist to airplane.
		20-ton hoist	Raise airplane.
	Local fabrication or 7727552 (Oklahoma City ALC)	Skid plates (4)	Allow main landing gear to assume normal position when airplane is lowered.

[1]Airplanes through AF69-6196 except AF69-6189

2-39. Attach points are readily accessible through center wing accesses. The airplane hoisting sling is attached by quick-release pins and is capable of lifting 36,000 pounds.

2-40. HOISTING AIRPLANE. (Refer to table 2-7 and see figure 2-11.)

CAUTION

Maximum safe hoisting weight of the airplane is 36,000 pounds.

Ensure that required structural access panels are installed (table 2-7).

a. Open access 3133-5, 4133-5, 3113-10, and 4113-10.

b. Attach sling assembly to overhead hoist or portable crane with a lifting capacity of 20 tons.

c. Hoist sling assembly into position above wing and secure quick-release pins to wing lift lugs. Ensure flathead pin is installed from aft side on forward sling link assemblies.

d. Attach guy lines to each main gear and to nose gear tiedown shackle to guide and stabilize airplane during suspension.

CAUTION

The airplane has a normal noseup attitude when suspended. Care shall be taken to avoid bumping tail cone during hoisting. Extension of arresting gear may prevent tail cone damage.

e. With a person stationed at each guy line, carefully hoist airplane.

f. Accomplish required maintenance.

g. Position skid plates under main landing gear wheels before wheels touch the ground.

h. With a person stationed at each guy line, carefully lower the airplane to the ground.

i. Remove quick-release pins from wing lift lugs and swing hoist assembly clear of airplane.

j. Close accesses 3133-5, 4133-5, 3113-10, and 4113-10.

k. Remove guy lines from nose and each main landing gear.

Table 2-7. Access Panel Restrictions During Hoisting Operation

CAUTION

To prevent structural damage to airplane, the following access panels shall be installed (with all fasteners) before hoisting airplane.

1123-1	or	2123-4[1] 2123-9[2] 2123-11[1]
2212-6 2212-10	or	2222-4
5122-4		
5122-5		
5122-6[2]		
5132-1		
5133-1		
6122-4		
6122-5		
6132-1		
6133-1		
6222-1	or	6222-3
1222-8 1222-8-1 1222-9 1222-10	or	1222-5 1222-6 1222-6-1 1222-6-3 1222-11

If nose gear is installed, the following panels must be installed:

2212-6 2212-10	or	1222-5 1222-6 1222-6-1 1222-6-3 1222-11

[1]Airplanes through AF69-6196

[2]Airplanes AF69-6197 and subsequent