Aerolineas Argentinas

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CHAPTER 10 – PARKING AND MOORING

TABLE OF CONTENTS

NORMAL PARKING

1. General
   A. The airplane is normally parked for short periods with chocks in front of and behind at least one main gear wheel, and with parking brakes off. The parking brake is used to hold the airplane until chocks are in place. Openings in the airplane structure such as vents and scoops shall be covered or plugged to keep out weather and foreign matter. Should very high winds be expected, refer to 10-21-0, High Wind Conditions, Mooring. For special procedures to park the airplane for engine operation refer to 71-09-100/201.
   B. A static ground on the airplane is not necessary when the airplane is parked or is serviced during the turnaround operation. This does not include when the maintenance steps given below are done (Ref chapter 20-40-11).
      (1) A static ground on the airplane is not necessary when you pressure refuel the airplane. An electrical bond between the airplane and the refuel vehicle is recommended.
      (2) A static ground of the airplane when you fuel over the wing is recommended.
      (3) Do a static ground of the airplane when you do maintenance procedures. Do this when you use devices such as lights, power tools, and instruments powered from external cords that are attached to grounded electrical power sources.

   WARNING: PITOT PROBE COVERS AND STATIC PORT COVERS ARE RECOMMENDED WHEN THE AIRPLANE IS PARKED FOR MORE THAN A STANDARD TURNAROUND OR WHEN CONDITIONS SUCH AS INSECT ACTIVITY, DUST STORMS OR VOLCANIC ASH MAY INCREASE THE THE RISK OF PITOT PROBE OR STATIC PORT CONTAMINATION. A PITOT PROBE OR STATIC PORT SYSTEM BLOCKED BY FOREIGN OBJECTS SUCH AS INSECTS MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE-SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

   C. If the airplane is to be parked for more than a standard turnaround, install the pitot probe covers and static port covers.

WARNING: FAILURE TO REMOVE THE COVERS FROM THE PITOT PROBES OR COVERINGS FROM THE STATIC PORTS BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE-SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

D. Remove pitot probe covers and static port covers prior to flight operations.

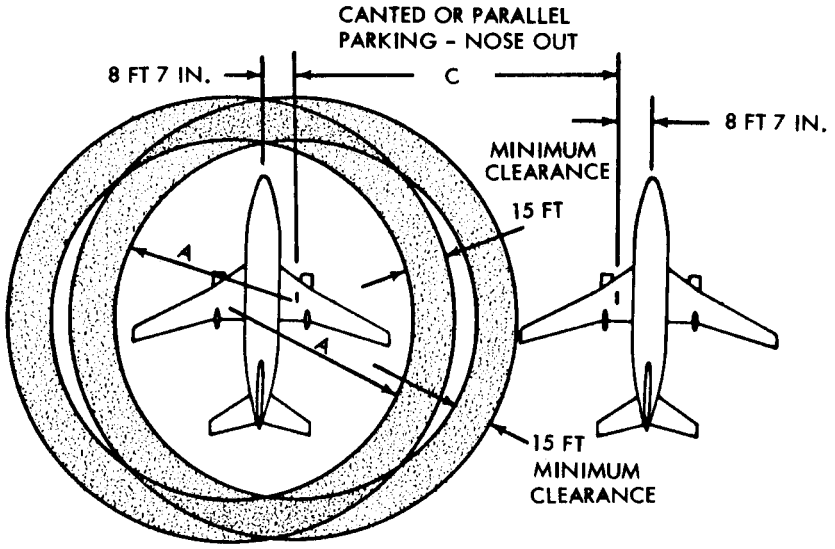
E. A minimum distance of 15 feet should be maintained between airplanes being towed or parked to give adequate turning clearances (Fig. 201). If engine operation is anticipated, ensure airplanes, maintenance personnel and equipment, and buildings, have adequate protection from jet blast and heat at breakaway from standstill (Fig. 202). Various thrust settings that will be required for breakaway from standstill are governed by airplane position, type of area, and surface conditions. A high initial thrust setting is required to start airplane movement. The setting is then reduced to idle, or slightly above, to continue the maneuver.

WARNING: DO NOT CROSS ENGINE EXHAUST AREA DURING ENGINE RUN-UP OR TAXIING. BE SURE AREAS IN FRONT OF ENGINES ARE CLEAR BEFORE ENGINE RUN-UP.

F. The curves in Fig. 202 present the estimated jet wake characteristics for the 737 airplane at breakaway thrust. The results obtained are based on a gross weight of 70,000 pounds and a friction coefficient of 0.04. It should be realized that this is an average value and does not apply to an airplane that has been parked for a long time.

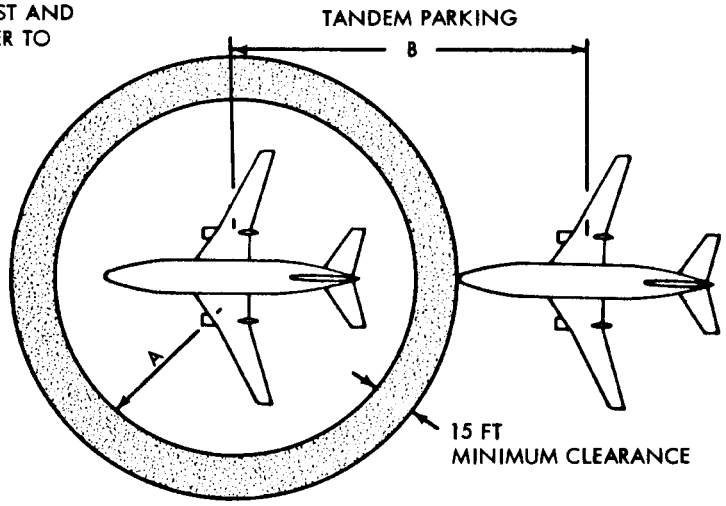
G. Taxi or tow airplane into position designated for parking. If the airplane is towed into position, install main and nose gear ground lock assemblies before towing (Fig. 204). Terminate maneuver with airplane headed into the prevailing wind.

H. Install nose gear downlock assembly when airplane stops after taxiing if the airplane is to be packed or maintenance accomplished. If the airplane is to be jacked, install main gear downlock assemblies jacked, install main gear downlock assemblies (Fig. 203).



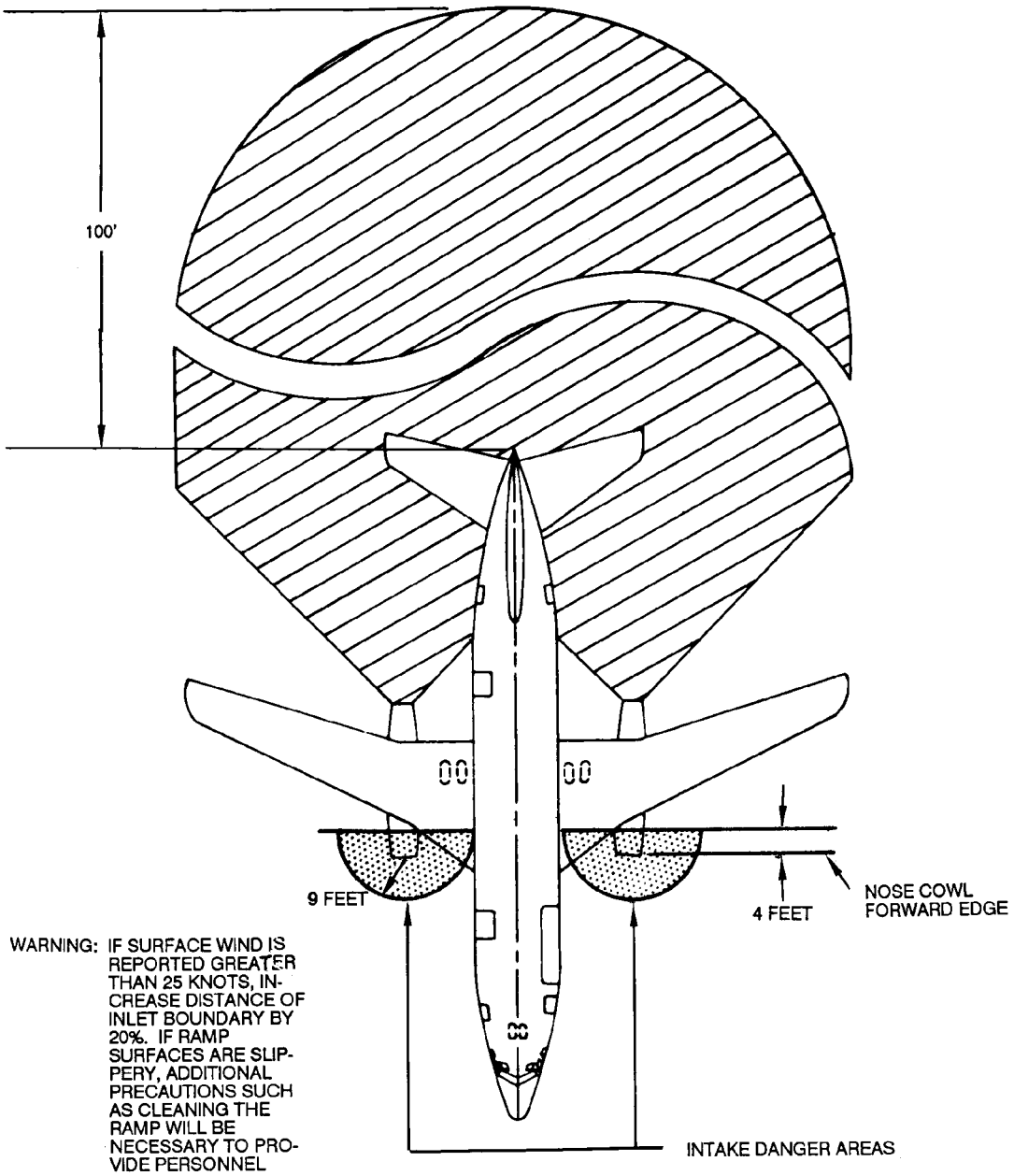
NOTE: ALL RADIUS DIMENSIONS SHOWN ARE FOR A THEORETICAL TURN OF 78°

FOR ENGINE EXHAUST AND DANGER AREAS, REFER TO FIGURE 202

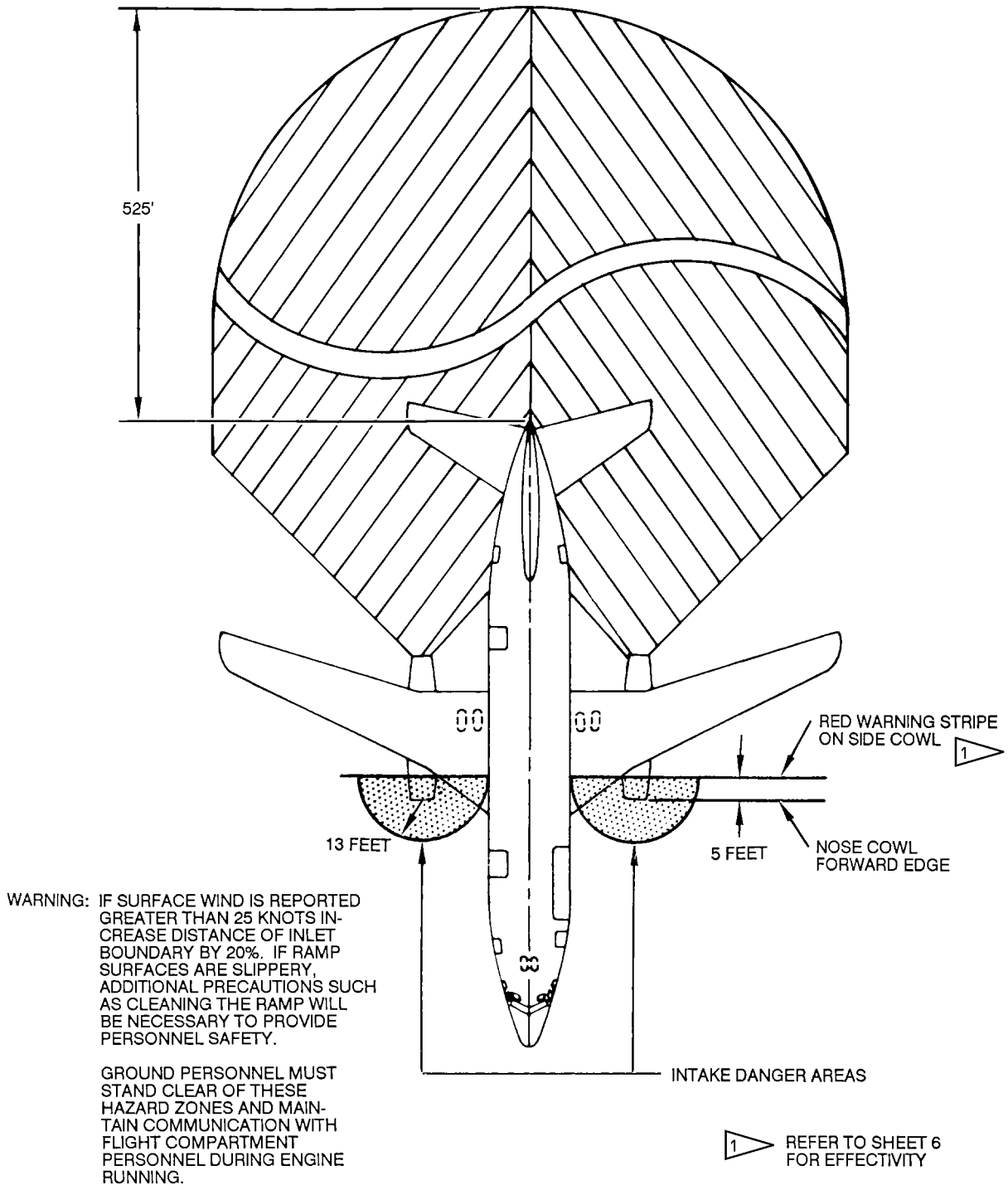


MODEL	A	B	C
737-100	53 FT 6 IN.	121 FT	105 FT
737-200	56 FT 5 IN.	128 FT	111 FT

Typical Parking
Figure 201

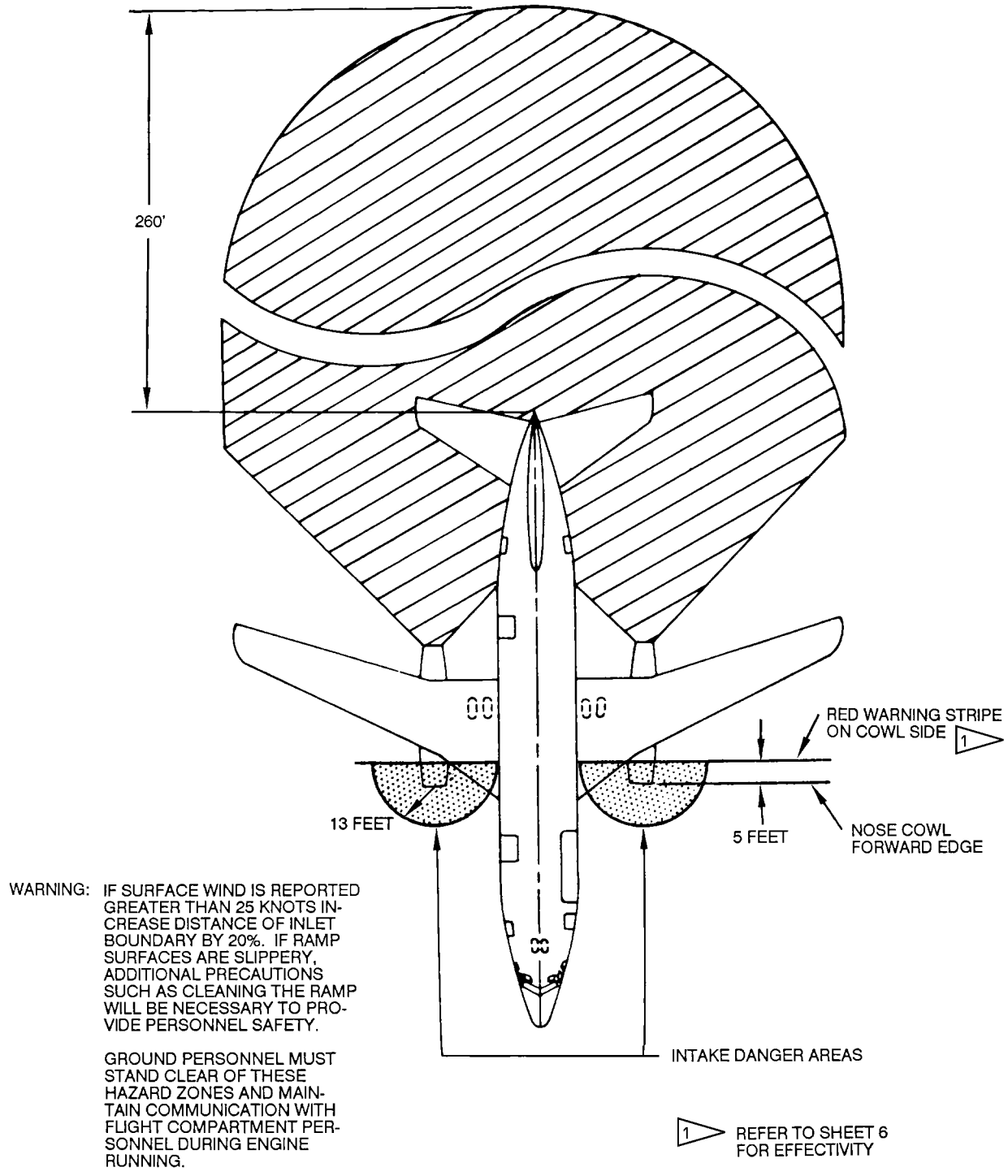


Jet Wake Data for Parking
Figure 202 (Sheet 1)



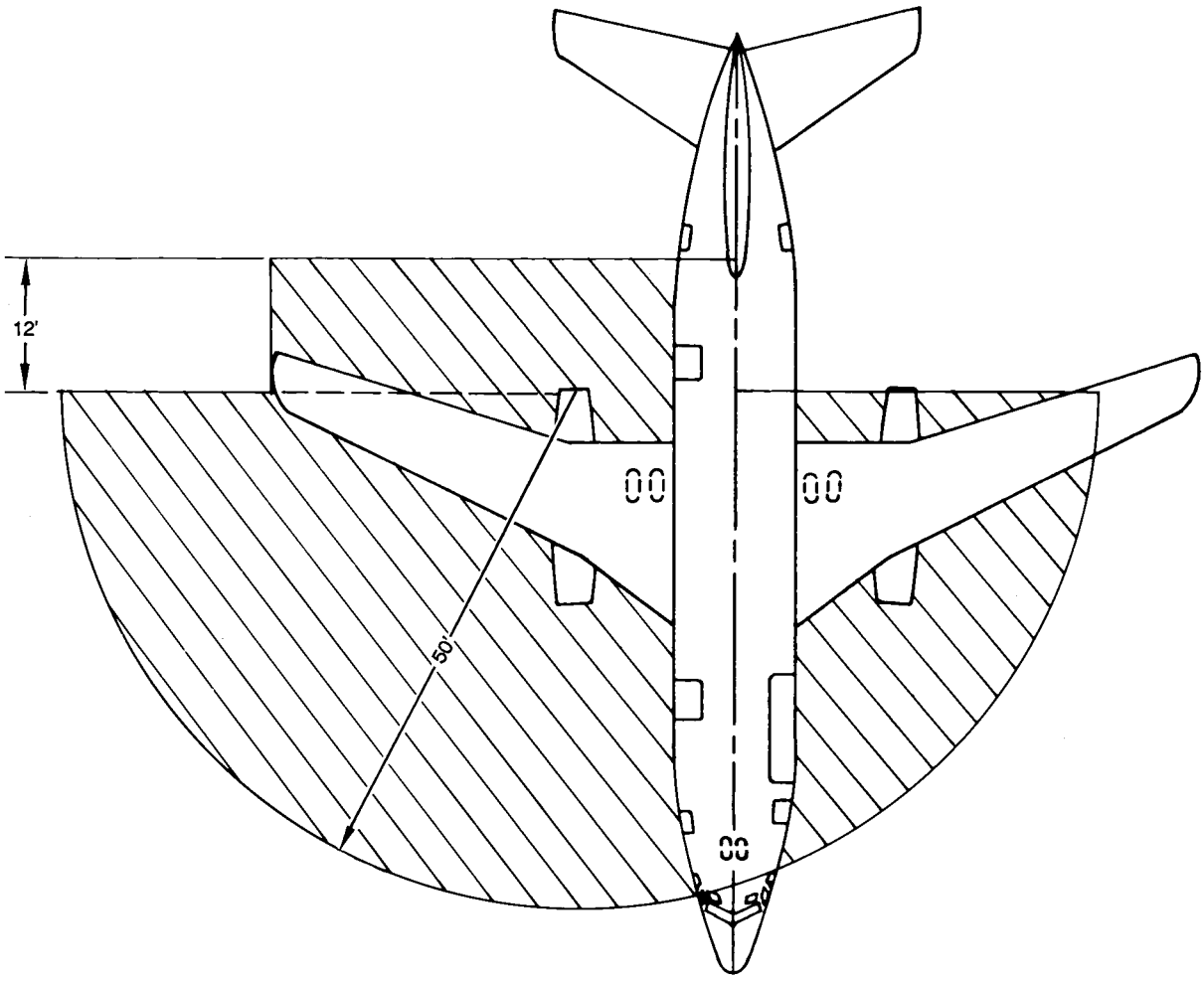
TAKE-OFF THRUST (BOTH ENGINES OPERATING)

Jet Wake Data for Parking
Figure 202 (Sheet 2)



FORWARD BREAKAWAY THRUST (BOTH ENGINES OPERATING)

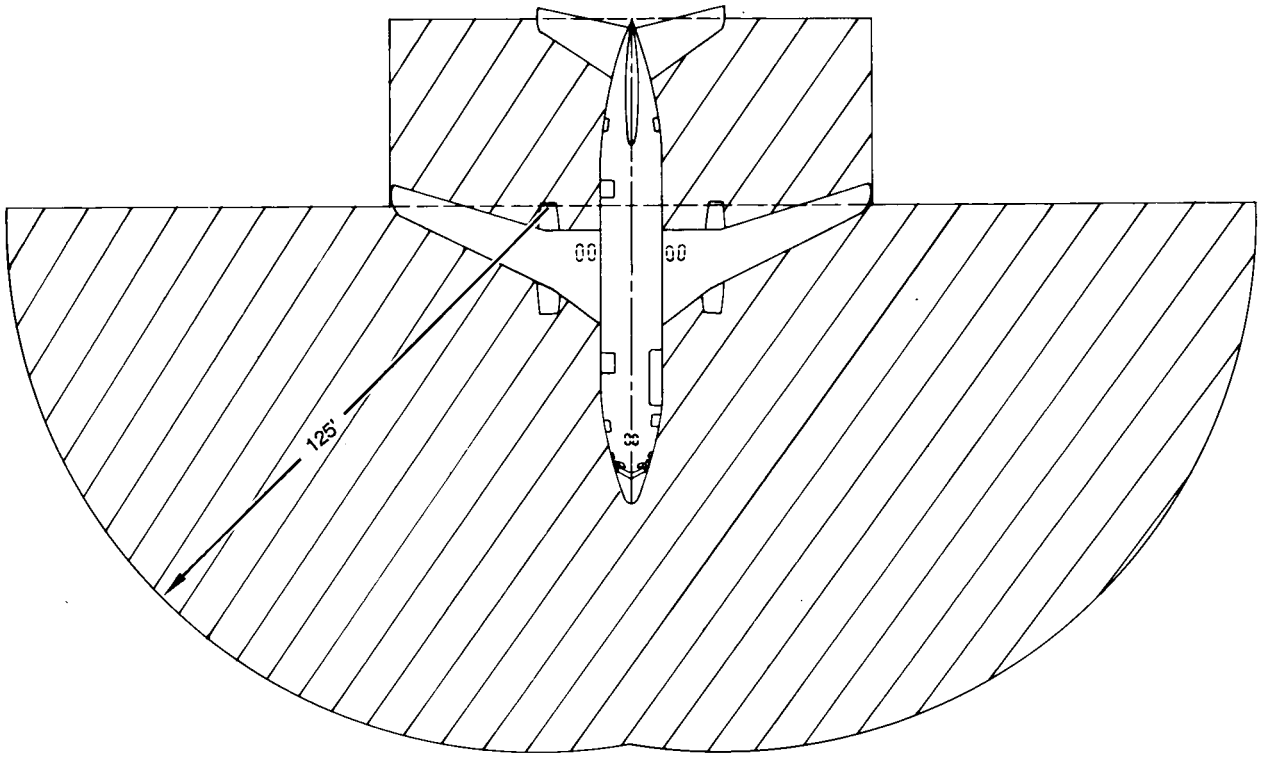
Jet Wake Data for Parking
Figure 202 (Sheet 3)



REVERSER OPERATION AT IDLE THRUST

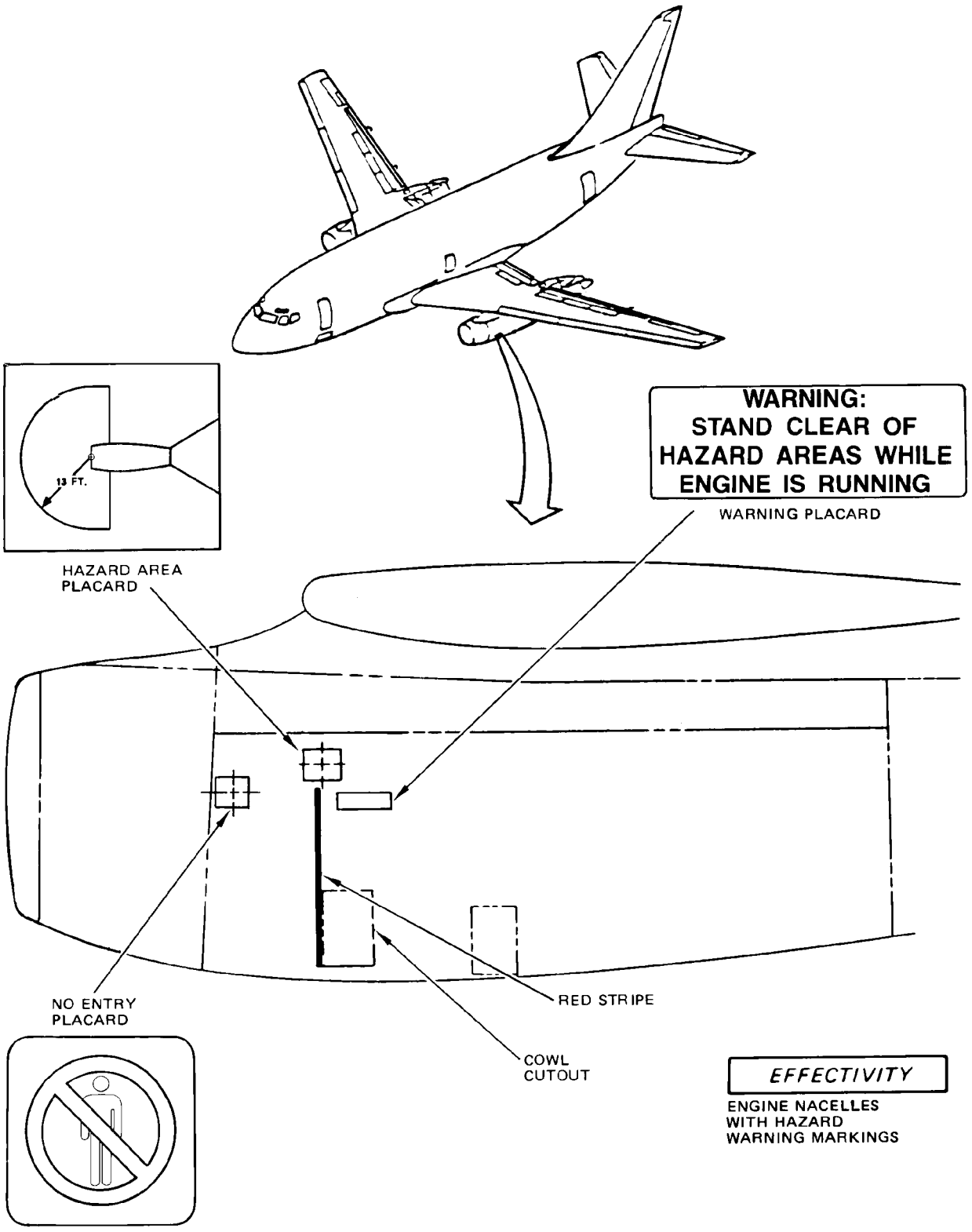
NOTE: RIGHT ENGINE SHOWN, LEFT ENGINE HAZARD ZONE SIMILARLY LOCATED WITH RESPECT TO THE LEFT ENGINE. FOR BOTH ENGINES RUNNING, HAZARD ZONE IS COMBINED PERIMETER OF BOTH SINGLE-ENGINE HAZARD ZONES.

Jet Wake Data for Parking
Figure 202 (Sheet 4)

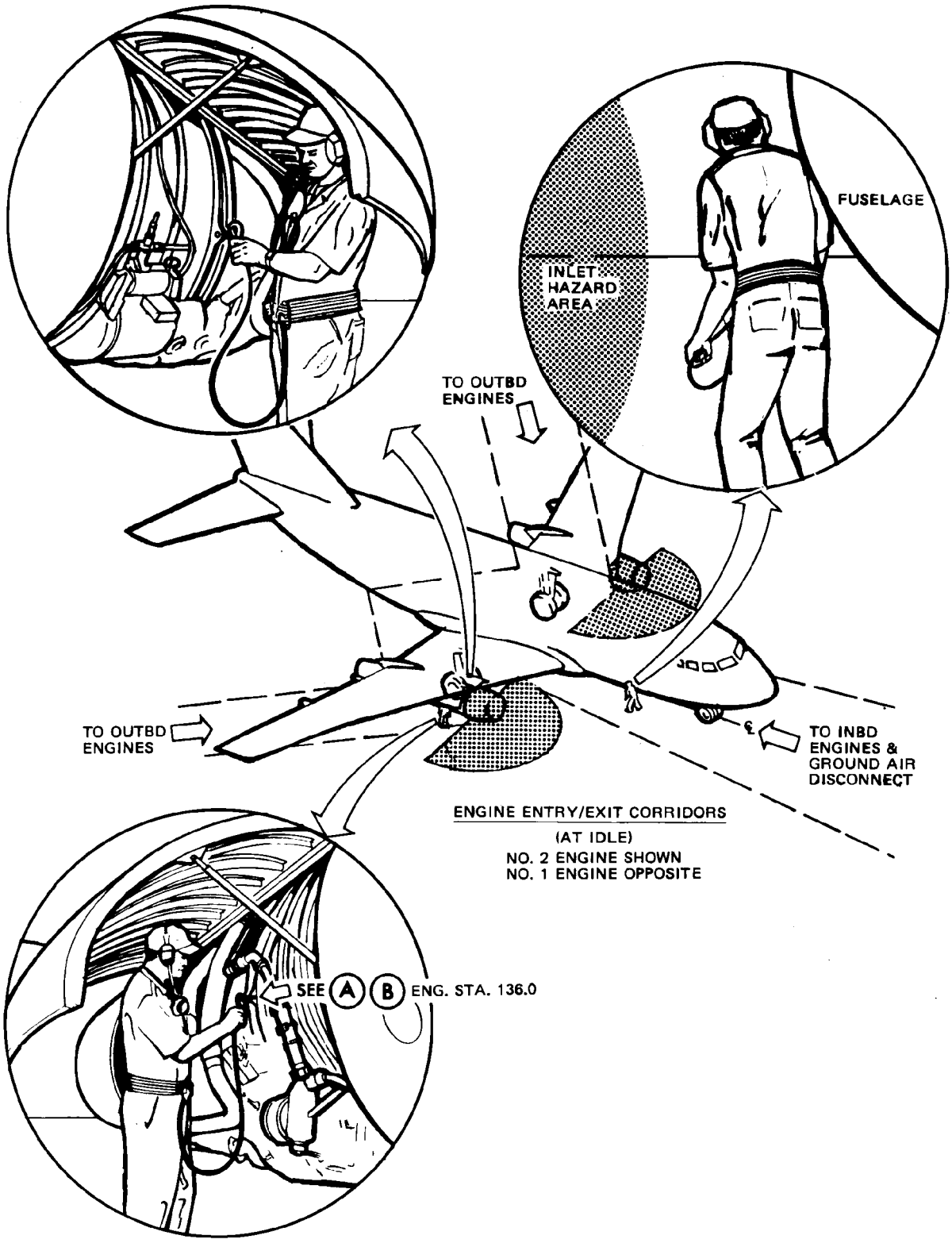


REVERSER OPERATION AT BREAKAWAY THRUST (BOTH ENGINES OPERATING)

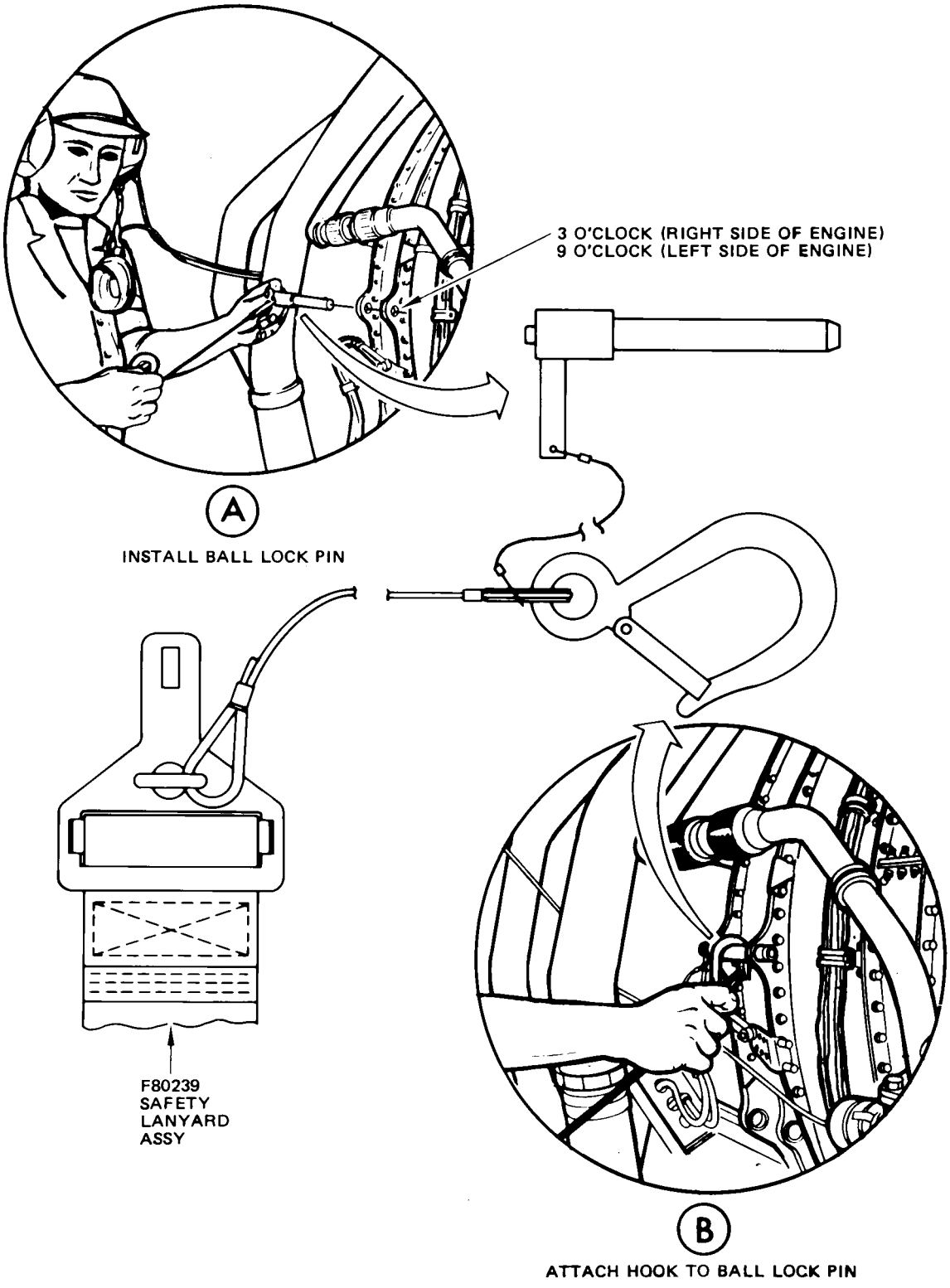
Jet Wake Data for Parking
Figure 202 (Sheet 5)



Jet Wake Data for Parking
Figure 202 (Sheet 6)



Jet Wake Data for Parking
Figure 202 (Sheet 7)



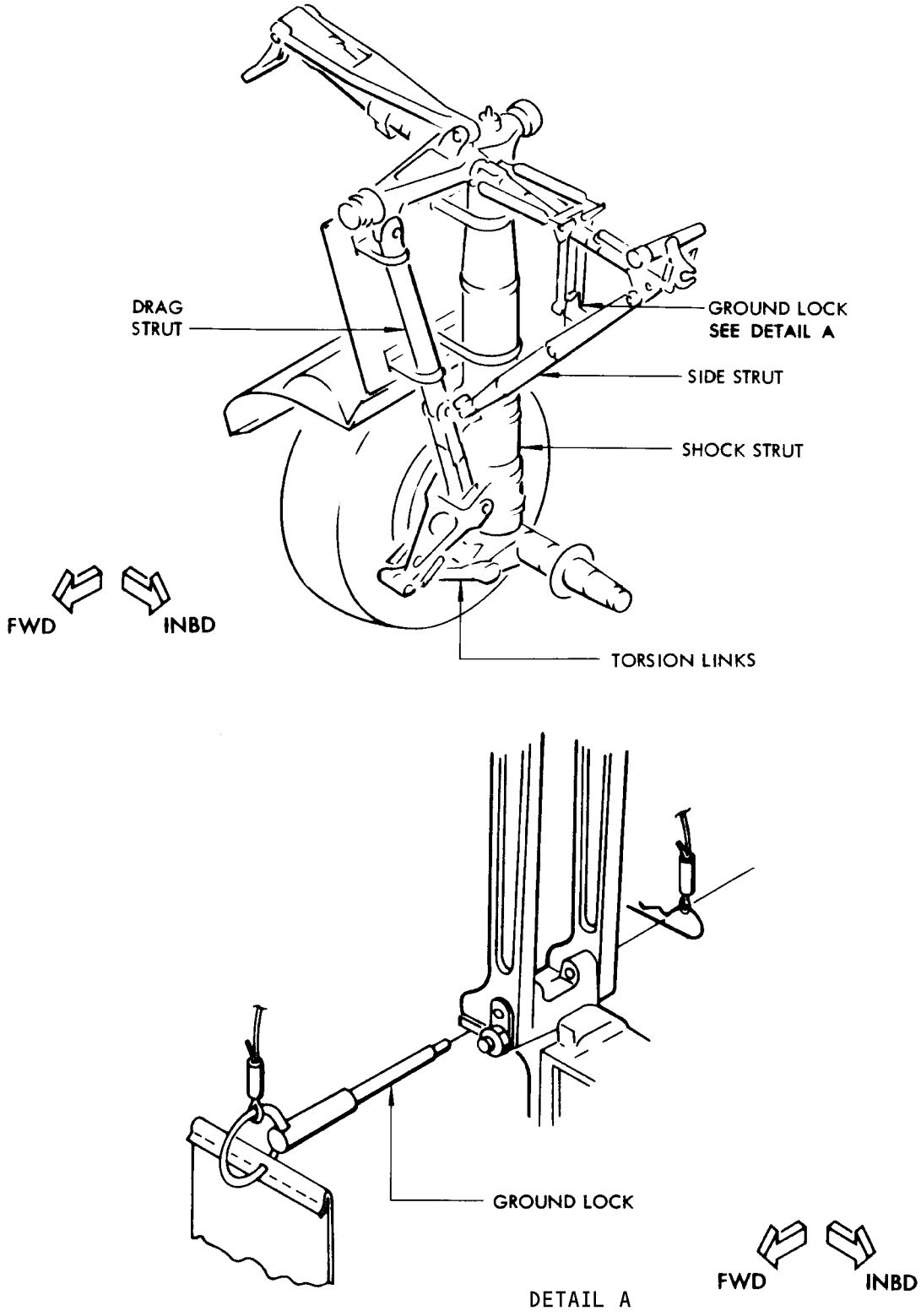
Jet Wake Data for Parking
Figure 202 (Sheet 8)

I. Review Fig. 202 for identification of engine hazard areas, entry and exit corridors, and personnel safety lanyard assembly (F80239) attach points. Awareness of hazard areas and proper entry/exit corridors is essential whenever maintenance tasks are performed around or near an operating engine. Use of personnel safety lanyard is recommended, but not mandatory.

WARNING: DO NOT LATCH OR UNLATCH ENGINE SIDE COWLS WHILE ENGINE IS OPERATING. FORWARD SIDE COWL LATCHES ARE IN ENGINE INLET HAZARD AREA. IF ENGINE SIDE COWLS HAVE NOT BEEN REMOVED FOR PERFORMING ENGINE TRIM, LEAK CHECKS, OR OTHER MAINTENANCE TASKS REQUIRING ENGINE OPERATION, DO NOT ENTER OR EXIT FROM FORWARD END OF SIDE COWLS. ENTERING OR EXITING FROM FORWARD END OF SIDE COWL WILL PLACE PERSONNEL IN ENGINE INLET HAZARD AREA, AND MAY CAUSE POSSIBLE PERSONNEL INJURY. DO NOT CONNECT SAFETY LANYARD ASSEMBLY TO ANY TUBING, WIRE HARNESS, ETC. DAMAGE TO ENGINE OR INJURY TO PERSONNEL MAY OCCUR.

2. Equipment and Materials

A. Nose and Main Landing Gear Ground Lock Assembly - F72735
B. Plug, Engine Exhaust - F80093
C. Plug, Side Engine Inlet - F72717
D. Plug, APU Exhaust - F80076
E. Mat or suitable material for placing between tires and parking area if airplane is to be parked on ice or packed snow
F. Pitot Static Tube Cover - KPC3-775-625 (Fwd Fuselage)
G. Pitot Tube Cover - KPC3-640-35 (Vert Stabilizer)
H. Wheel chocks
I. Safety Lanyard Assembly - F80239
J. B00316 Solvent - Aliphatic Naphtha, TT-N-95, Type I
K. G02443 Orange barricade tape, 3 inches wide, 4 mils thick, non-adhesive, with "REMOVE BEFORE FLIGHT" printed on it in black letters.
L. G02219 3M Scotch Brand No. 471 vinyl adhesive tape (1.5 inches wide) bright yellow color.
M. G02444 Red paper tag (3 inches wide, 6 inches long) with attaching wire that has "STATIC PORTS COVERED" printed on it in black letters - P/N 2000s.
N. G02447 Red paper tag (3 inches long, 6 inches wide) with attaching wire that has "PITOT PROBES COVERED" printed on it in black letters - P/N 1000P.



Ground Lock Pin Installation for Main Gear
Figure 203

3. Park Airplane

A. Pitot probe covers and static port covers are recommended when the airplane is parked for more than a standard turnaround.

WARNING: PITOT PROBE COVERS AND STATIC PORT COVERS ARE RECOMMENDED WHEN THE AIRPLANE IS PARKED FOR MORE THAN A STANDARD TURNAROUND OR WHEN CONDITIONS SUCH AS INSECT ACTIVITY, DUST STORMS OR VOLCANIC ASH MAY INCREASE THE THE RISK OF PITOT PROBE OR STATIC PORT CONTAMINATION. A PITOT PROBE OR STATIC PORT SYSTEM BLOCKED BY FOREIGN OBJECTS SUCH AS INSECTS MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE-SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

B. Taxi or tow airplane into position designated for parking. If the airplane is towed into position, install main and nose gear ground lock assemblies before towing (Fig. 204). Terminate maneuver with airplane headed into the prevailing wind.

NOTE: Installation of nose gear lockpin is optional when airplane is being towed with gear hydraulic system pressurized.

C. Install nose gear downlock assembly when airplane stops after taxiing if the airplane is to be packed or maintenance accomplished. If the airplane is to be jacked, install main gear downlock assemblies jacked, install main gear downlock assemblies (Fig. 203).

D. If high winds are expected, refer to 10-21-0, High Wind Conditions Mooring.

E. Ground airplane (Ref. Chapter 20, Static Grounding).

F. If parking area is covered by ice or packed snow, place a mat or suitable material under and around tires to prevent tires from becoming frozen to the ground.

G. Turn on battery switch.

H. Set parking brake by depressing brake pedals and pulling up the parking brake handle on the captain's control stand. Relieve pressure on brake pedals before releasing the parking brake handle.

I. Place wheel chocks in front of and behind at least one set of main gear wheels per truck. Place wheel chocks about 3 inches away from the tires.

J. To release parking brakes, the captain's or first officer's brake pedals need only to be fully applied and then released. A light on the control stand next to the parking brake lever, is provided to indicate when the parking brake is on.

CAUTION: DO NOT LEAVE PARKING BRAKES ON ANY LONGER THAN NECESSARY WHEN BRAKES ARE HOT, FOLLOWING A HIGH ENERGY STOP, OR STOP OTHER THAN NORMAL. UNDER STATIC PRESSURE, HOT BRAKE SURFACES TEND TO FUSE TOGETHER.

K. Turn off battery switch if no longer required.

L. Set stabilizer, aileron and rudder trim control to ZERO.

M. Raise flaps to the fully up position.

CAUTION: DO NOT RESTRAIN THE CONTROL COLUMN OR RUDDER PEDALS. DOING SO COULD RESULT IN CONTROL SYSTEM DAMAGE.

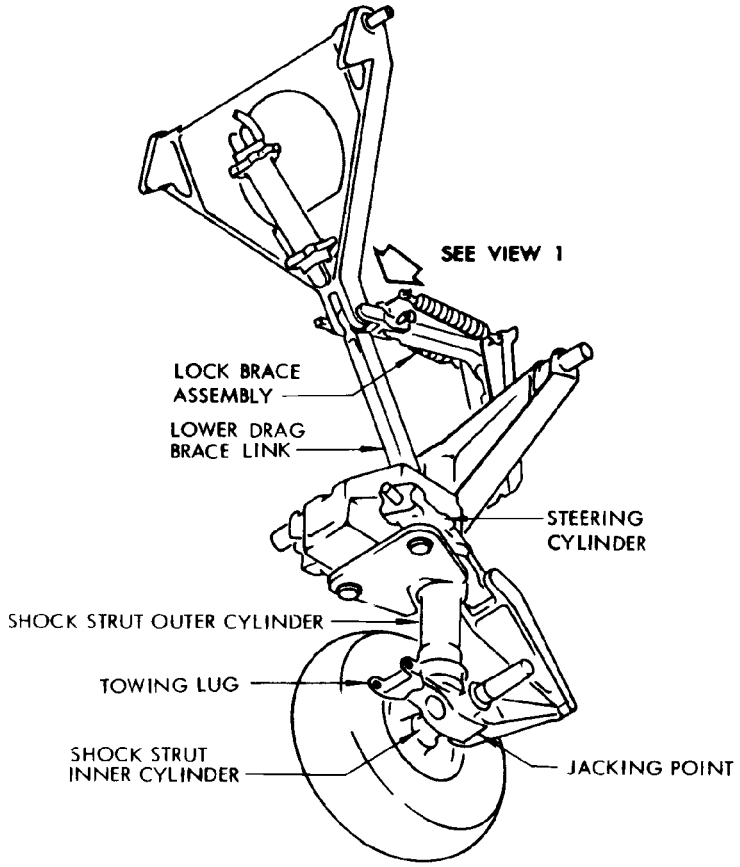
N. Place aileron control wheel in neutral.
O. Close all lavatory doors when airplane is parked to prevent the spreading of any possible fire.
P. Ensure that electronic access door is closed.
Q. Install plugs and covers as required.
R. In cold weather, it is necessary to drain fuel tank sumps prior to fueling to remove water from fuel tanks if the airplane has been idle for more than 45 minutes prior to fueling. Drain fuel tank sumps again after refueling if the airplane has been idle for 2 hours or more after refueling. In cold weather, water can freeze and not let the drain valves open.
S. Install the covers on the pitot probes.
   (1) Install the engine inlet and exhaust covers.

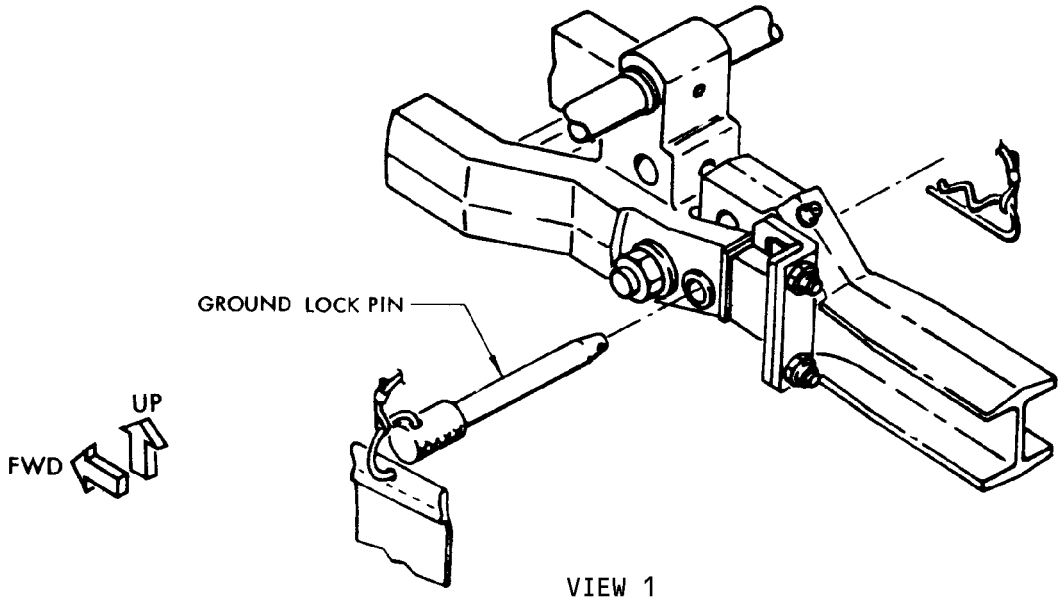
WARNING: WHEN THE PITOT PROBES ARE COVERED, MAKE SURE THAT CONDITION IS VISIBLE FROM THE GROUND. IN ADDITION, ATTACH A TAG TO THE LEFT CONTROL WHEEL IN THE FLIGHT DECK AS A REMINDER THAT PITOT PROBES ARE COVERED, FAILURE TO OBSERVE AND REMOVE COVERINGS OVER PITOT PROBES BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

CAUTION: WHENEVER AN OPENING IS COVERED, MAKE SURE THAT CONDITION IS VISIBLE FROM THE GROUND. ENGINES SHOULD NOT BE OPERATED WITH COVERS IN PLACE BECAUSE THE COVERS CAN COME OFF AND DAMAGE THE ENGINES.

   (2) Put the covers on the pitot probes (see Fig. 205 for locations of the pitot).

CAUTION: MAKE SURE THE PITOT PROBE COVER IS IN GOOD WORKING CONDITION WITH NO EVIDENCE OF DAMAGE, ESPECIALLY FRAYING AROUND THE COVER OPENING. FRAYED FIBERS FROM THE COVER COMBINED WITH OTHER SUBSTANCES SUCH AS DIRT, GREASE OR FLUIDS CAN CAUSE OBSTRUCTION IN THE PROBE.





VIEW 1

Ground Lock Pin Installation for Nose Gear
Figure 204

(3) Attach a red paper tag that has "PITOT PROBES COVERED" printed on it in black letters, to the top of the left control wheel in the flight deck.

WARNING: WHEN THE STATIC PORTS ARE COVERED, MAKE SURE THAT CONDITION IS VISIBLE FROM THE GROUND. IN ADDITION, ATTACH A TAG TO THE LEFT CONTROL WHEEL IN THE FLIGHT DECK AS A REMINDER THAT PITOT PROBES ARE COVERED, FAILURE TO OBSERVE AND REMOVE COVERINGS OVER PITOT PROBES BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

CAUTION: WHENEVER AN OPENING IS COVERED, MAKE SURE THAT CONDITION IS VISIBLE FROM THE GROUND. ENGINES SHOULD NOT BE OPERATED WITH COVERS IN PLACE BECAUSE THE COVERS CAN COME OFF AND DAMAGE THE ENGINES.

(4) Use 3M No. 471 yellow vinyl adhesive tape and orange barricade tape that has "REMOVE BEFORE FLIGHT" printed on it in black letters to cover the static ports in the following manner (see Fig. 205 for the locations of the static ports).

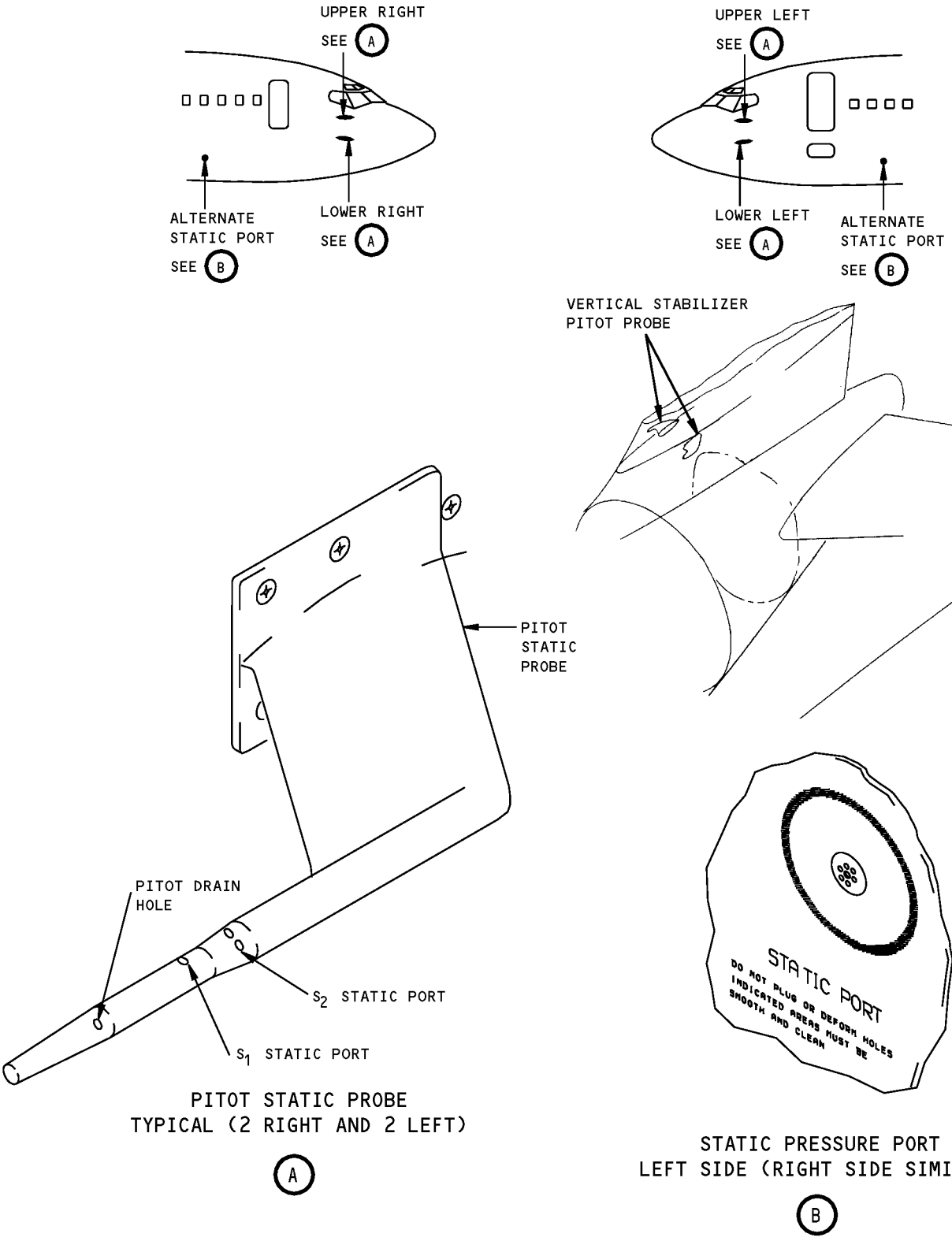
(5) Use the following static port cover procedure (see Fig. 206, Sheets 1 and 2, for illustrations of the static port convert placement procedure).

WARNING: DO NOT PLACE 3M NO. 471 YELLOW VINYL ADHESIVE TAPE OVER THE HOLES OF THE STATIC PORTS.

(a) Clean the area around each static port with aliphatic naphtha or equivalent, and a clean dry rag where you will put the 3M No. 471 yellow vinyl adhesive tape (see Fig 206, Sheet 1).

(b) Place one end of an approximately 4-foot long piece of the orange barricade tape over the holes of the static port and secure the upper edge with a 5 inch piece of 3M No. 471 yellow vinyl adhesive tape (see Fig. 206, Sheet 1, Steps 1 and 2).

NOTE: Smooth the 3M No. 471 yellow vinyl adhesive tape on the airplane surface to make sure the bond is satisfactory.



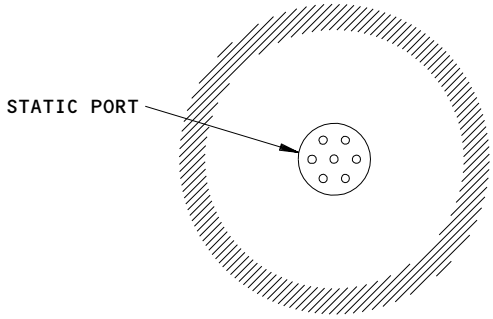
PITOT STATIC PROBE
TYPICAL (2 RIGHT AND 2 LEFT)

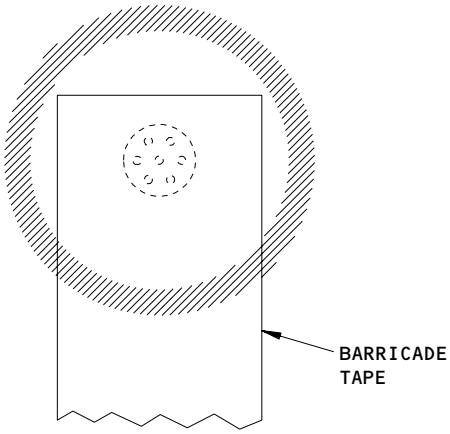
A

STATIC PRESSURE PORT
LEFT SIDE (RIGHT SIDE SIMILAR)

B

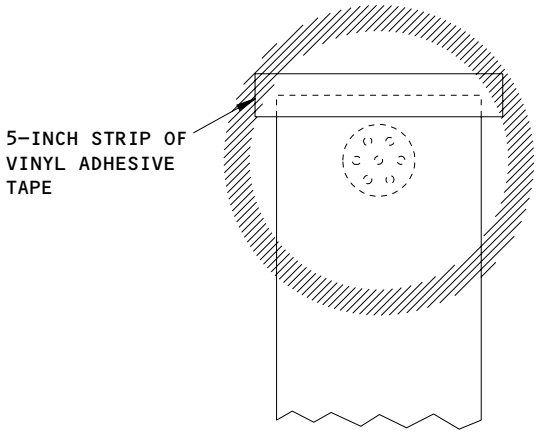
Pitot Static System Component Location
Figure 205





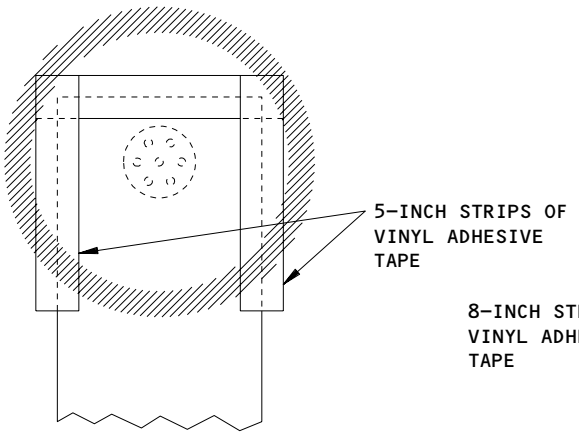
STEP 1

PUT ONE END OF THE BARRICADE TAPE OVER THE STATIC PORT TO COVER THE HOLES



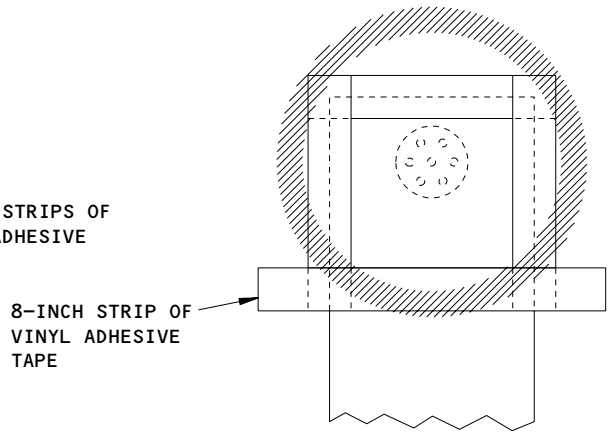
STEP 2

SECURE THE TOP EDGE OF THE BARRICADE TAPE WITH 5 INCHES OF VINYL ADHESIVE TAPE



STEP 3

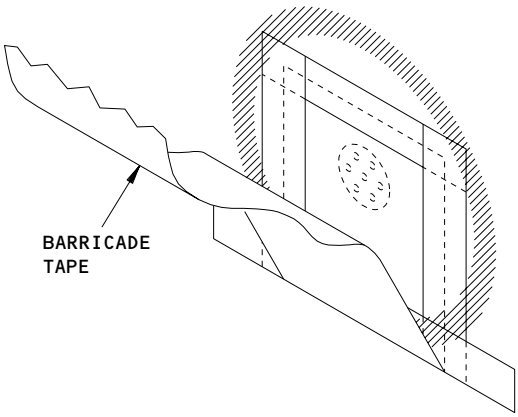
PUT TWO 5-INCH STRIPS OF VINYL ADHESIVE TAPE OVER THE SIDES OF THE BARRICADE TAPE, OVERLAPPING THE TOP STRIP OF ADHESIVE TAPE



STEP 4

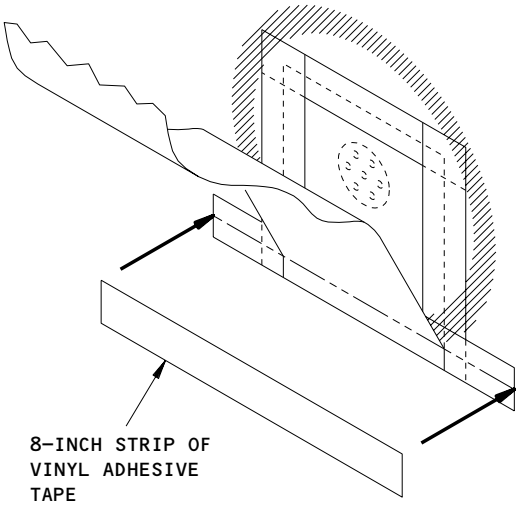
PUT AN 8-INCH HORIZONTAL STRIP OF VINYL ADHESIVE TAPE OVER THE BARRICADE TAPE BELOW THE STATIC PORT HOLES OVERLAPPING THE TWO VERTICAL STRIPS

Static Ports Cover Procedure
Figure 206 (Sheet 1)



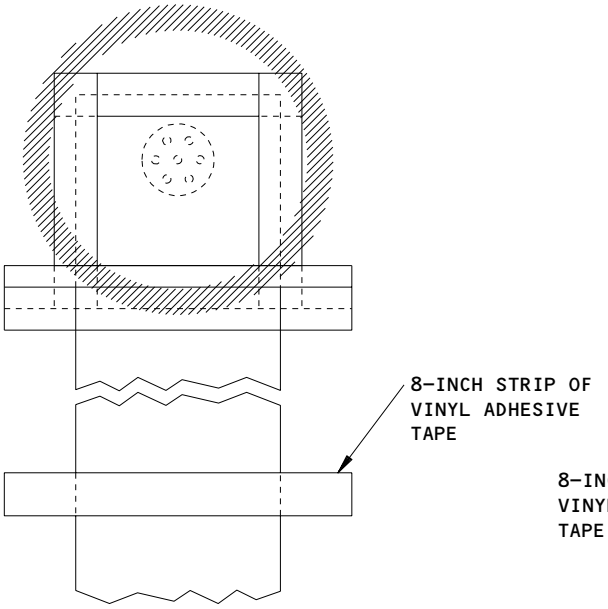
STEP 5

CAREFULLY GRASP THE FREE SECTION OF BARRICADE TAPE, AND FOLD IT BACK AGAINST THE SURFACE OF THE AIRPLANE



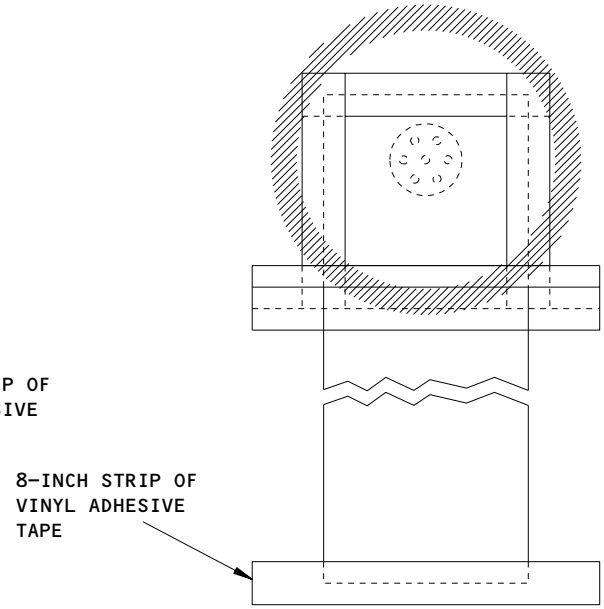
STEP 6

PLACE AN 8–INCH STRIP OF VINYL ADHESIVE TAPE HORIZONTALLY OVER THE BACK SIDE OF THE BARRICADE TAPE, OVERLAPPING THE LOWER HALF OF THE FIRST 8–INCH STRIP OF ADHESIVE TAPE



STEP 7

PUT AN 8–INCH STRIP OF VINYL ADHESIVE TAPE HORIZONTALLY OVER THE BARRICADE TAPE HALFWAY DOWN THE LENGTH OF THE BARRICADE TAPE



STEP 8

PUT AN 8–INCH STRIP OF VINYL ADHESIVE TAPE HORIZONTALLY OVER THE LOWER END OF THE BARRICADE TAPE

Static Ports Cover Procedure
Figure 206 (Sheet 2)

1) Do not put vinyl adhesive tape over the holes of the static ports.

(c) Put a 5-inch piece of 3M No. 471 vinyl adhesive tape on each vertical edge of the barricade tape overlapping the first strip of adhesive tape (see fig 206, Sheet 1, Step 3).

(d) Put an 8-inch piece of 3M No. 471 vinyl adhesive tape horizontally over the barricade tape below the static port holes, overlapping the two vertical strips of adhesive tape. (see fig. 206, Sheet 1, Step 4).

(e) Carefully grasp the free section of the barricade tape and fold it back up against the surface of the airplane. Place an 8-inch strip of the No. 471 vinyl adhesive tape horizontally over the back side of the barricade tape overlapping the lower half of the first 8-inch strip of No. 471 vinyl adhesive tape (see Fig 206, Sheet 2, Steps 5 and 6).

(f) Allowing the barricade tape to stream down, place an 8-inch strip of 3M No. 471 yellow vinyl adhesive tape horizontally barricade tape (Fig 206, Sheet, Step 7).

(g) Place an 8-inch strip of 3M No. 471 yellow vinyl adhesive tape horizontally over the lower end of the barricade tape (Fig. 206, Sheet 2, Step 8).

(6) Attach a red paper tag that has "STATIC PORTS COVERED" printed on it in black letters, to the left control wheel in the flight deck with wire.

4. Restore Airplane to Its Usual Condition for Return to Service

WARNING: FAILURE TO REMOVE COVERS FROM PITOT PROBES BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE-SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

CAUTION: REMOVE ALL COVERS. ENGINES SHOULD NOT BE OPERATED WITH COVERS IN PLACE BECAUSE THE COVERS CAN COME OFF AND DAMAGE THE ENGINES.

A. Remove the covers from the following components:
   (1) Pitot probes
   (2) Engine inlet and turbine exhaust

B. Remove the "PITOT PROBES COVERED" tag from the left control in the flight deck.

WARNING: FAILURE TO REMOVE BARRICADE TAPE AND VINYL ADHESIVE TAPE FROM THE STATIC PORTS BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE-SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

CAUTION: REMOVE ALL BARRICADE TAPE AND VINYL ADHESIVE TAPE. ENGINES SHOULD NOT BE OPERATED WITH COVERINGS IN PLACE BECAUSE THE COVERINGS CAN COME OFF AND DAMAGE THE ENGINES.

C. Remove all barricade tape and vinyl adhesive tape from the static ports.

D. Remove the "STATIC PORTS COVERED" tag from the left control wheel in the flight deck.

PROLONGED PARKING - MAINTENANCE PRACTICES

1. General
   A. If you will park the airplane for more than 7 days, do this procedure to help prevent deterioration of the airplane. This includes the structure, finish, or system components in an area that is open to the weather.
   B. The steps that are necessary to protect a parked airplane and the repeat intervals are shown in the Airplane Storage Procedure. To put the airplane in a serviceable condition, do the steps in the Put the Airplane to a Serviceable Condition After Storage procedure.
2. Airplane Storage Procedure
   A. Consumable Materials
      (1) C00009 Corrosion Preventive Compound - BMS 3-23, Type II (AMM 20-30-21).
      (2) C00174 Corrosion Preventive Compound - MIL-C-16173, Grade 2 (AMM 20-30-21)
      (3) D00015 Grease - BMS 3-24 (AMM 20-30-21)
      (4) D00126 Grease - MIL-G-25013 (AMM 20-30-21)
      (5) D00153 Hydraulic Fluid Assembly Lubricant - BMS 3-11 (AMM 20-30-11)
      (6) D00212 Hydraulic System Lubricant - MCS-352B (AMM 20-30-21)
      (7) D00388 Grease - Aeroshell No. 5 (AMM 20-30-21)
      (8) D00633 Grease - BMS 3-33 (AMM 20-30-21)
      (9) D60046 Oil, Lubricating - MIL-L-7808 (AMM 20-30-21)
      (10) G00087 Insulation Covering - BMS 8-142, Type 1 Class 3 (AMM 20-30-51)
      (11) G50267 Protective Coating - Ardrox 306-N (alkaline removable) (AMM 20-30-41)
      (12) G00317 Tape - Aluminum Foil (AMM 20-30-51)
      (13) G02219 Tape - 3M No. 471 or Permacel SVP224
   B. References
      (1) 9-10-0, Towing
      (2) 12-11-0, Fuel Servicing
      (3) 12-14-0, Water Servicing
      (4) 12-15-21, Oxygen Servicing
      (5) 12-15-31, Main Landing Gear Shock Strut Servicing
      (6) 12-15-41, Nose Landing Gear Shock Strut Servicing
      (7) 12-15-51, Landing Gear Tire Servicing
      (8) 12-17-0, Toilet Servicing
      (9) 12-21-11, Main Landing Gear Lubrication
      (10) 12-22-21, Rudder Control System Lubrication
      (11) 12-22-51, Trailing Edge Flap System Lubrication
      (12) 12-22-71, Leading Edge Slat System Lubrication
      (13) 12-26-0, Cable Lubrication
      (14) 12-40-0, Cleaning and Washing

(15) 20-30-21, Lubricants
(16) 20-30-31, Cleaners and Polishes
(17) 20-40-11, Static Grounding
(18) 24-31-11, Storage Battery
(19) 30-42-0, Windshield Wiper System
(20) 30-43-0, Rain Repellent System
(21) 32-00-01, Landing Gear Downlocks Groundlock Assembly
(22) 49-11-0, Auxiliary Power Unit
(23) 71-00-1, Power Plant

C. Airplane Storage

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
AIR CONDITIONING SYSTEM								
1. Drain and fill these components with Mobil Jet II oil or an oil shown on the usage chart: - Air-cycle machine - Turbo fan. NOTE: Do not do this step if you installed oil in the past 45 days.								
2. Open and ventilate the air conditioning mix bay.	X							
3. Bleed the moisture from the drain fittings of the sensing line in the pack bay.	X							
4. If you run the engine to control the total acid number and water content of the engine oil (Ref POWER PLANT AND APU STORAGE) operate the air conditioning systems in conjunction with the engine as follows: NOTE: Do not operate the air flow multiplier.								X
A. Operate each air conditioning system with its applicable engine for the complete time of the engine run.								X
5. If you remove the engine to keep it in storage and you preserve the APU with periodic operation (Ref POWER PLANT AND APU STORAGE) do the steps that follow: A. Install an applicable pressure type plug on the engine bleed ducts at the engine disconnect. B. Operate air conditioning systems for a minimum of 10 minutes	X							

Airplane Storage
Figure 201 (Sheet 1)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
ELECTRICAL/ELECTRONIC SYSTEMS								
1. Electrically ground the airplane (AMM 20-40-11).	X							
2. Put all the switches and the circuit breakers in the OFF position.	X							
3. Disconnect the main battery.	X							
NOTE The battery may need to be reconnected for periodic APU or engine runs or powering of electronic systems. Disconnect the battery after the procedure.								
4. On airplanes with the crash position indicators (CPI), remove the beacon and control dispenser batteries. Connect the batteries to the "trickle" charger in the test shop until the airplane is put in a serviceable flight status.		X						
5. When the airplane is in storage, leave the dry-shutoff battery installed on the beacon to prevent unwanted signals that are caused by a test or accidental release. Remove the battery for flight and replace the battery every 3 months.						X		
6. Remove all the emergency batteries (e.g. Bull Horn, Escape Slide, Emergency Exit, etc.).	X			X				
NOTE: Do not remove the batteries from the beacon transmitter.								
Optional: Keep the emergency batteries installed on the airplane and keep the charge in the batteries with the ground power. Make sure the emergency batteries are serviceable every 30 days.								
7. Remove the main battery and put it in storage.				X				
Optional: Keep the battery on the airplane and do periodic maintenance on it (AMM 24-31-1).								

Airplane Storage
Figure 201 (Sheet 2)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
8. Apply power to all electronic systems and instrument lights (not the vertical and directional gyros, weather radar systems and inertial navigation systems) for a minimum of 2 hours. On used airplanes, only apply power for 1 hour on all the digital Flight Management System equipment.				X				
9. Operate the vertical and directional gyros for approximately 1/2 hour.				X				
10. Operate the weather radar system for 10 minutes in the test mode. If no test mode is available, operate it at the maximum range.				X				
WARNING: DO NOT OPERATE THE RADAR INSIDE ASSEMBLY BUILDINGS, HANGARS OR OTHER PLACES WHERE THE RADAR BEAM POINTS TOWARD NEARBY PERSONNEL, EXPLOSIVES OR LARGE METAL OBJECTS (AIRPLANE, FUEL TANKS, ETC.).								
11. Operate Inertial Navigation System (INS) for 10 minutes in standby mode.				X				
CONTROL CABIN EQUIPMENT								
1. Install pitot covers on all pitot tubes and pitot static probes.	X							
2. Put the static port covers on all of the static ports. The procedure to attach the static port covers to the airplane is given in Normal Parking (AMM 10-11-0)	X							
3. Install the insulation covering on the temperature probe, the angle of attack sensor, and the ice detector. Hold the insulation covering in its position with the 3M tape.	X							

Airplane Storage
Figure 201 (Sheet 3)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
4. Remove the rain repellent bottle and purge the system (AMM 30-43-0).	X							
5. Remove and store the windshield wipers, arms and blades (AMM 30-42-0).	X							
6. You can keep the rain repellent bottle and the wipers installed on the airplane if maximum storage is less than 60 days and temperature inside airplane stays less the 160F.								
7. Pitot and static system can stay installed and the drain valve assemblies drained every 60-65 days.					X			
8. If you want and you can keep sufficient fire fighting capability by other procedures, take the portable extinguishers to stores. Keep the fire extinguishing system in a serviceable "full" condition. Do the same for all the portable extinguishers left on the airplane. Weigh the extinguishers every 180 days.	X						X	
9. If you want, remove and take this equipment to stores: - clocks - handsets - oxygen masks - portable oxygen bottles	X							
FLIGHT CONTROLS								
1. Move the trailing edge flaps and the leading edge flaps and slats through one full cycle. Keep the flaps in the full up position.	X						X	

Airplane Storage
Figure 201 (Sheet 4)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
2. Move these components through one full cycle and trim them to ±2 units from zero: - Stabilizer - Rudder trim - Aileron trim NOTE: Do not keep the rudder, stabilizer or aileron trim parked at the same trim setting as the interval before.	X					X		
3. Move all the primary flight controls surfaces (ailerons, spoilers, elevators, and rudder) with power from the electric pumps of all three systems. If there is no fuel on the airplane, use the ground hydraulic (cart or manifold) power instead to prevent damage to the pumps from an overheat condition.	X					X		
4. Apply lubrication to the control cables in the wing leading edge, the trailing edge and the wheel well (AMM 12-26-0).	X					X		
5. Examine the reservoir on the side of the ball-bearing nut on the flap transmission assembly of the jackscrew. Make sure the reservoir is filled with MIL-L-7870 oil.	X						X	
6. Apply a layer of the corrosion preventive compound (MIL-C-16173, class 2) to the steel fittings that are not painted on the flaps and on the inner side of the fairways as follows: A. Do not apply the corrosion preventive compound to areas which will be subsequently painted or sealed. B. Install a shield or protective cover to the pulleys, wire bundles, etc., to prevent direct application of the corrosion preventive compound.	X					X		

Airplane Storage
Figure 201 (Sheet 5)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
C. Apply the masking tape to the electrical connectors to prevent the application to the electrical contacts.								
D. Apply the compound prior to the installation of the equipment (if it is applicable).								
E. Do not apply the corrosion preventive compound to the teflon bearings, surfaces or joints, which are lubricated in another manner.								
F. The last application of the corrosion preventive compound must be a continuous layer with no puddles.								
G. Examine the application every 30 days.				X				
7. Apply lubrication to all the service points, reservoirs and the gear-box service points.	X						X	
8. Apply lubrication to the control cables as shown in BAC5008. This does not include cables through the body of the airplane that were lubricated as shown in BAC5008 60 days before the storage period. This does not include engine control cables (AMM 12-26-0).	X						X	
9. Butter lubricate the gears on the flap-drive gearboxes: 65-51500, 65-51510, 65-51513 and 65-80055 with MIL-G-21164.	X						X	
NOTE: Plan to do this procedure so it does not disrupt the cycling of the flaps and the slats.								
10. Butter lubricate the upper-angle gear pair on 65-50254 and 65-50255 on 65-50304 and 65-50325 (depending on configuration) with MIL-G-21164.	X						X	
NOTE: Plan to do this procedure so it does not disrupt the cycling of the flaps and the slats.								

Airplane Storage
Figure 201 (Sheet 6)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
FUEL SYSTEM								
1. Prepare the fuel System for storage.								
NOTE: Microbial contaminatin of fuels can cause operational problems such as corrosion of metallic structure, fuel quantity indication problems, and blocking of the scavenge systems and fuel filters during flight. There are a number of signs that can indicate that fuel tanks are contaminated e.g., evidence of contamination on fuel filters, blocking of fuel injectors, erratic/inaccurate fuel level readings.								
2. Drain all water that has collected in the sumps of the fuel tanks and the suge tanks (AMM 12-11-0).	X							
WARNING: DO NOT BREATHE BIOCIDE VAPOR OR TOUCH THE BIOCIDE FUEL ADDITIVE. IF YOU BREATHE THE VAPORS OR TOUCH THE BIOCIDE FUEL ADDITIVE, IT CAN CAUSE HEALTH PROBLEMS. CONSULT THE MANUFACTURES MSDS.								
3. Fill and keep all of the fuel tanks at a minimum of 10% capacity with biocide treated fuel (AMM 28-11-0).	X							X

Airplane Storage
Figure 201 (Sheet 7)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
4. Use the 3M Tape No. 471 or its equivalent to install a metal or plastic screen on the top of each vent opening or cavity. Attach a red flag to the material that is on the top of the openings.	X							
5. For prolonged storage, examine the material coverings every 6–8 weeks.								

Airplane Storage
Figure 201 (Sheet 8)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
6. Engine preservation runs (see POWER PLANT AND APU storage instructions) must be run from tank to engine for 50% run duration and center tank to all engines for 50% run duration. This procedure will keep a circulation of fuel in the tanks. It will also keep the boost pumps and the fuel system plumbing O-ring and seals becoming dry. You must remove the tanks vent covers installed in step 1. above during the engine preservation runs.								X
EXTERIOR SURFACE PROTECTION								
1. On areas that do not have paint, do one of the steps that follows:								
A. Wash the airplane at 7 to 14 day intervals (AMM 12-40-0) or		X	X					
B. Apply the wax and wash the complete airplane at 4 week intervals (AMM 12-40-0). Apply wax again after you wash the airplane, or				X				
C. Apply a layer of temporary protective coating to all metal that is not painted. Do not apply it to the engine tail cones and other high temperature parts which are subjected to high operational temperature (paint would burn off). Apply protective coating Ardrox 306-N as follows:	X							
(1) Wash the area to remove all oil, grease, fingerprints, dust, and other unwanted material (AMM 12-40-0). You can apply the temporary coating directly over a layer of previously applied similar coating.								

Airplane Storage
Figure 201 (Sheet 9)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
(2) Application - Spray the coating on (air or airless) to get a uniform dry film thickness of 1.5 ±0.5 mils. The applied coating must be smooth, transparent and continuous. Permit the coating to cure. (a) Before you touch the layer permit it to cure for 20 minutes (minimum) at room temperature. (b) Before you stack it, permit the coating to cure for 4 hours (minimum) at room temperature. (c) Remove the coating with a cleaner (AMM 20-30-31/201) and apply the coating again every 6 months.							X	
D. Examine the coating for damage and corrosion of the substrate every 14 days.	X		X					
2. Wash painted surfaces at 4-week intervals (AMM 12-40-0).	X			X				

Airplane Storage
Figure 201 (Sheet 10)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
3. Apply 3M #471 tape or its equivalent, around all external opening doors, upper half of the nose radome and hatches on the outer side of the airplane. This will prevent water from going into the airplane. Where you apply tape to a painted surface only, apply Ardrox 306-N prior to tape installation to prevent paint damage during tape removal as follows: WARNING: TOLUENE IS TOXIC AND FLAMMABLE. DO NOT BREATH THE VAPORS OR PERMIT IT TO TOUCH THE SKIN FOR A LONG TIME. KEEP IT AWAY FROM HEAT AND OPEN FLAME. A. Thin the area with the toluene. B. Permit the area to dry for 15-20 minutes (10 minutes to apply second coat), and 2 hours before you touch the area. (1) For an accelerated cure, dry the area for 10 minutes (minimum) at room temperature followed by 20 minutes (minimum) at 120 ±5°F.	X							
4. Make sure all the doors and hatches are closed when no person is in the area.	X							X
5. For airplanes you will store for 60 days or longer, put aluminum foil or other reflective material such as aluminized mylar, on the outer side of the control cabin windows. Hold the reflective material with 3M adhesive backed aluminized tape. Do not cover the window with anything that would permit heat to build up on the windshield.	X							

Airplane Storage
Figure 201 (Sheet 11)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
HYDRAULIC SYSTEM								
1. Examine the hydraulic system for leaks and repair them if it is necessary.	X							
2. Fill the hydraulic system completely full of BMS 3-11 hydraulic fluid to the correct level.	X							
3. Lubricate all the bearings which have lubrication fittings on the hydraulic equipment and linkages (AMM 12-21-11, AMM 12-22-21).	X							
4. Clean and apply a layer of Hydraulic Assembly Lube MCS-352B to the exposed finished surfaces of these components: - Actuator piston rods - Valve slides - Other hydraulic equipment NOTE: Do not use MCS-352B on components that contain MIL-H-5606 or MIL-H-6083. MCS-352B contains BMS 3-11 hydraulic fluid and can damage the seals with the MIL oil system.	X							
5. Apply a layer of MIL-C-16173, Class 2 corrosion preventive compound to all aluminum actuator, valve, and equipment housings that are not painted. Do not permit the compound to spill on the piston rods and the valve slides (except the components with MIL-H-5606).	X							

Airplane Storage
Figure 201 (Sheet 12)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
6. Apply a layer of MIL-C-16173, Class 2 corrosion preventive compound to all hydraulic system plumbing that is not painted. It is not necessary to apply the coating to the hydraulic system plumbing installed in areas which have the humidity and temperature controlled as specified in INTERIORS storage requirements.	X							
7. Lubricate the hydraulic snubbers on the aft airstair.				X				
8. Examine the fluid level in the hydraulic snubbers of the aft airstair every 30 days.				X				
9. On day 30 and every 30 days, examine the tubes and components that you can get to. If you find corrosion, do a complete check of all other tubes. Completely clean all the areas where corrosion is found. Preserve the area and refer to the Boeing Corrosion Manual for more action that is possible you must do.				X				
10. Examine all the surfaces that have hydraulic assembly lubrication or corrosion preventive compound on them.						X		

Airplane Storage
Figure 201 (Sheet 13)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
EQUIPMENT/FURNISHINGS								
Do these steps to supply protection for a maximum of 30 days:								
1. Furnishing coverings to be installed at the operator's discretion.	X							
2. The carpets and seats can stay in the airplane for 30 days after storage begins with no humidity control required.								
3. If toilet waste systems have been serviced and activated, do these steps:	X							
A. Flush each toilet.	X							
B. Drain the waste tanks (AMM 12-17-0).								
C. Flush the toilet two times with the manual override shutoff for the water supply in the closed position.	X							
4. Clean all the tray carriers, stowage compartments, waste containers, and dispenser compartments in the lavatories and galleys.	X							
5. Visually inspect the lavatories and galleys for not normal conditions and repair them at the operator's discretion.	X							
6. Close the window shades and install covers on the main entry and service door windows with opaque material. This will prevent fading of the seats and carpet materials because of the sun's ultraviolet rays. If you remove the seats and carpets you can lift the window shades.	X							
7. Make sure that the escape slide girt bars are properly installed in the girt bar hooks or the slides are removed.	X							
8. Open the closet, galley, and lavatory doors to permit air circulation.	X							

Equipment and Furnishing Protection
Figure 202

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
Do these steps to supply protection for a maximum period of 2 years:								
1. Examine the upholstery and carpets for moisture and mildew after storage and do corrective action as necessary.	X							
2. When you keep the seats and carpets in the airplane for more than 30 days, you must keep humidity to 70% maximum on the inner side of the airplane. If you cannot keep this humidity, remove the seats and carpets. Put them in a storage area where you can keep the humidity at 70%.	X							
3. Disconnect and take apart the attendants flashlights and put them in storage.	X							
INCLEMENT WEATHER CONDITIONS								
1. If the quantity of snow on the airplane gets to a depth of 8 to 10 inches, remove the snow.								X
2. Do these steps to tie down the airplane in winds of 65 mph or less:								X
A. Either engines or dummy engines of equal weight to the engines must be installed.								
B. Put the flaps in the retracted position and put the control surfaces in the neutral position.								
C. Put the wheel chocks forward and aft of the nose gear and the main gear. Place wheel chocks about 3 inches away from the tires.								

Airplane Storage
Figure 203 (Sheet 1)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
LANDING GEAR								
1. Place the wheel chocks forward of and aft of all the wheels of the main landing gear. Place wheel chocks about 3 inches away from the tires.	X							
2. Make sure the landing gear downlocks are installed (AMM 32-00-01/201). Close the wheel well doors. Do not set the parking brake.	X							
3. Examine the shock strut for leaks before 15 days of initial storage. Examine the shock struts every 30 days and do repairs when it is necessary.	X		X	X				
4. Foam clean the cadmium plated landing gear surfaces that are not painted every 60 days (AMM 12-40-0/201). After you clean the surfaces, lubricate with the BMS 3-33.					X			
5. Lubricate all the joints which have lube fittings with BMS 3-33 grease (AMM 20-30-21/201).	X						X	
6. Do not deflate the shock struts.	X							
7. Turn the wheels one-third revolution every 14 days. You can tow the airplane to turn the tires (AMM 9-10-0/201). You do not have to turn the tires if you store the airplane with tires that are not serviceable (i.e. you will replace the tires before a flight or extensive taxi).	X		X					
8. Examine every 14 days that the tire pressure is not less than 15 psig below the normal servicing pressure. Service the tires when it is necessary (AMM 12-15-51/201).	X		X					
9. Install tire covers (opaque material) to protect the tires from the weather.	X							

Airplane Storage
Figure 203 (Sheet 2)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
10. Service the shock struts of the landing gear (AMM 12-15-31/201, 12-15-41/201). Extend the shock struts approximately half way. Butter lubricate the chrome area with MIL-G-3545 grease. Put the cylinders to their serviceable condition.					X			
11. Apply BMS 3-33 grease to all the landing gear parts that are not painted. Apply another layer if it is necessary after you clean the area.	X							
OXYGEN SYSTEM Do these steps to supply protection for a maximum of 2 years.								
WARNING: FOLLOW THE PROCEDURES AND CAUTIONS IN AMM 12-15-21/201 OXYGEN-SERVICING WHEN YOU REMOVE AND REPLACE THE OXYGEN CYLINDERS.								
1. Remove the portable oxygen bottles and the crew oxygen bottle (with the regulator) and put it in spares as specified in the operator's standard procedures.	X							
NOTE: Attach a tag that identifies each cylinder as a serviceable part if the pressure is above 50 psi and the next hydrostatic test is not due. Reject the cylinders which exceed the elapsed time necessary for the hydrostatic test and process them as specified in the operator's standard procedure.								

Airplane Storage
Figure 203 (Sheet 3)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
2. Install caps on the cylinder end of each of the oxygen distribution lines and the connector end of the hoses in the oxygen mask stowage boxes (AMM 12-15-21). Put the ends of the tube and the hoses in the clean polyethylene bags. Attach red flags to the bags.	X							
3. Remove the crew system oxygen masks. Put the masks in the clean polyethylene bags and take them to spares. Put a cap on the oxygen hose connector part of the stowage box assembly and put it away.	X							
POTABLE WATER SYSTEM								
1. Completely drain the water system including the galley and lavatory tanks (AMM 12-14-0). Purge the system with dry air and nitrogen. Do not close and seal the drains; put a screen on them to prevent insect nesting.	X							
2. Remove the filters. Do not install them when the airplane is in storage.	X							
WING LEADING EDGE, TRAILING EDGE, AND EMPENNAGE								
1. Apply a layer of the MIL-C-16173, class 2, to all the flap tracks, carriages and rollers (AMM 12-22-51, AMM 12-22-71). Do this every 90 days.	X					X		
2. Apply a layer of MIL-C-16173, Class 2 to the steel parts that are not painted. Apply as it is specified for steel fittings on the flaps that are not painted (see FLIGHT CONTROLS storage).	X							

Airplane Storage
Figure 203 (Sheet 4)

Item	Procedures Repeat Intervals (Days)							
	Initial	7	14	30	60	90	180	As Rqd
3. Lower (or open) all the flaps (the leading and trailing edge) and the spoilers and examine them for corrosion. Stow all flaps in the up (closed) position. Do this every 90 days.	X					X		
4. Examine the structural drain holes to make sure they are open. Do this every 90 days.	X					X		
5. Examine the vertical and horizontal stabilizer balance bays and access panel areas for corrosion. Do a check of one left bay and one right and mark it. If corrosion is found, inspect all bays. If no corrosion is found, do this step every 90 days. Each time you do the check, examine different bays.	X					X		
6. Before you store the airplane, spray the front and rear spar cavities with the corrosion preventive compound. Apply it with the limits specified in step 2. Optional: Inspect and repair as necessary CIC coatings in the front and rear spar cavities. Spray the front and treat spar cavities with CIC.	X							
7. Drain all the water from the fuel tanks, surge tanks and boost pumps to prevent corrosion. Do this at the end of the first 7 days, then do it again every 14 days.	X		X					
8. Drain, aerate and examine one integral fuel tank, which is outboard of the buttock line 70.5, for corrosion. Do this every 180 days. Do a check of the tank that was not inspected at the last inspection.	X						X	
9. Apply a layer of MIL-L-7870 to the parts of the fuel pumps that are external to the fuel tanks. Examine the areas every 30 days. Apply a new layer at each inspection.	X			X				

Airplane Storage
Figure 203 (Sheet 5)

ITEM	PROCEDURES REPEAT INTERVALS (DAYS)							
	INITIAL	7	14	30	60	90	180	AS RQD
10. Make visual spot checks of the front and rear spars for corrosion. To do check of the front spar, you must remove some access panels. The access panels are aft of the slats.						X		
FIRE EXTINGUISHER SYSTEM								
1. Explosive cartridges must stay installed on the nacelle fire extinguisher bottle. They must be connected to their normal electrical supply.								
2. Press the "Ext Text" switch on the P8-1 panel. The L, R, and APU test lights must illuminate to make sure the continuity of the equipment and the valve. Do this every 180 days.	X						X	
3. Charged and serviceable batteries can stay on the airplane.								
4. Do a hydrostatic test of the bottles every 5 years from the date of manufacture.								
5. Keep the Auxiliary Power Unit Fire Extinguisher System in a servicable "full" condition.								
POWER PLANT AND APU								
1. Refer to AMM 71-00-1, Power Plant for the steps to store the engine.								
2. Store the airplane with the engines removed.								
A. Make sure protective caps are installed on all tube ends, ducts, electrical connectors, fuel fittings and hydraulic fittings (AMM 71-00-00/401).								
B. Install a moisture barrier over exposed metal surfaces on the pylon.								
C. Make drains in the moisture barrier to allow water to get out.								
D. Add a dessicant inside the moisture barrier to keep humidity near the exposed metal surfaces low.								
3. Refer to AMM 49-11-0 for the steps to store the APU.								

Airplane Storage
Figure 203 (Sheet 6)

3. Put the Airplane to a Serviceable Condition After Storage

A. References

(1) 12-12-0, Hydraulic Servicing
(2) 12-14-0, Water Servicing
(3) 12-15-11, Hydraulic Accumulator Servicing
(4) 12-15-31, Main Landing Gear Shock Strut Servicing
(5) 12-15-41, Nose Landing Gear Shock Strut Servicing
(6) 12-15-51,. Landing Gear Tire Servicing
(7) 12-21-11, Main Landing Gear Lubrication
(8) 12-21-21, Nose Landing Gear Lubrication
(9) 12-22-51, Trailing Edge Flap System Lubrication
(10) 12-25-21, Forward Entry Door Lubrication
(11) 12-25-41, Galley Door Lubrication
(12) 12-25-51, Servicing and Access Door Lubrication
(13) 12-25-91, Emergency Exit Hatch Lubrication
(14) 12-25-131, Landing Gear Support Beam Lubrication
(15) 12-26-0, Cable Lubrication
(16) 20-40-11, Static Grounding
(17) 27-11-0, Aileron and Aileron Trim Control System
(18) 27-21-0, Rudder and Rudder Trim Control System
(19) 27-31-0, Elevator and Tab Control System
(20) 27-32-21, Stall Warning Module
(21) 27-41-0, Horizontal Stabilizer Trim Control Ssytem
(22) 27-51-0, Trailing Edge Flap System
(23) 27-58-01, Trailing Edge Flap Position Indicating System
(24) 27-61-0, Spoiler Control System
(25) 27-62-0, Speedbrake Control System
(26) 27-81-0, Leading Edge Flaps and Slats Control System
(27) 27-88-0, Leading Edge Flaps and Slats Position Indicating System
(28) 28-11-0, Integral Fuel Tanks
(29) 29-11-0, Hydraulic System A
(30) 29-11-41, Hydraulic Pump Case Drain Filters
(31) 29-11-111, Hydraulic Return Filter
(32) 29-31-0, Hydraulic Pressure Indicating System
(33) 29-32-0, Hydraulic Fluid Overheat Warning System
(34) 29-33-0, Hydraulic Fluid Quantity Indicating System
(35) 30-42-0, Windshield Wiper System
(36) 30-43-0, Rain Repellent System
(37) 32-12-01, Landing Gear Door Seals
(38) 34-11-01, Pitot-Static System
(39) 35-21-0, Passenger Oxygen System
(40) 49-11-0, Auxiliary Power Unit
(41) 52-11-0, Forward Entry Door
(42) 52-13-0, Aft Entry Door
(43) 71-00-1, Power Plant

(44) 34-24-11, Magnetic Standby Compass

B. Air Conditioning System
   (1) Examine the water separator bags to make sure they are clean.
   (2) Install new water separator bags if it is necessary.

C. Compass

   S 822-001
   (1) If the airplane has been parked for over one year on the same heading perform a compass swing (AMM 34-24-11-2).

D. Electrical/Electronic and Flight Systems
   (1) Put all the circuit breakers in the ON position.
   (2) Connect the main battery.
   (3) Move the DC meter select switch to the BAT position.
   (4) Make sure the DC voltmeter shows 24 to 28 volts.
   (5) Replace all the gyros if they are not installed.
   (6) Install the batteries for the emergency exit lights and the escape slide lights.
   (7) Operate the Emergency Exit lights switch in the control cabin and the aft attendant's panel.
   (8) Install the batteries (if removed) in the bullhorn and make sure it operates correctly.
   (9) AIRPLANES WITH CRASH POSITION INDICATORS: Install the beacon and the control dispenser batteries, and install the shutoff battery package.

E. Control Cabin Equipment

   WARNING: FAILURE TO REMOVE COVERS FROM PITOT PORTS BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

   CAUTION: REMOVE ALL COVERS. ENGINES SHOULD NOT BE OPERATED WITH COVERINGS IN PLACE BECAUSE THE COVERINGS CAN COME OFF AND DAMAGE THE ENGINES.

   (1) Remove the pitot covers.
   (2) Remove the covers from the vertical stabilizer pitot tubes.
   (3) Remove the "PITOT PROBES COVERED" tag from the left control wheel in the flight deck.
   (4) Remove the tape or covers from these components:
      (a) The temperature probe
      (b) The angle-of-attack sensor
      (c) The ice detector

(d) The static pressure sources

WARNING: FAILURE TO REMOVE BARRICADE TAPE AND VINYL ADHESIVE TAPE FROM THE STATIC PORTS BEFORE FLIGHT MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

CAUTION: REMOVE ALL BARRICADE TAPE AND VINYL ADHESIVE TAPE. ENGINES SHOULD NOT BE OPERATED WITH COVERINGS IN PLACE BECAUSE THE COVERINGS CAN COME OFF AND DAMAGE THE ENGINES.

(5) Remove all barricade tape and vinyl adhesive tape from the static ports.
   (a) Inspect each static port and if necessary use naphtha or equivalent to remove all tape residue, dirt and other contaminants around the port.
(6) Remove the "STATIC PORTS COVERED" tag from the left control wheel in the flight deck.
(7) Install the quick-opening drain valve assembly and the drain plug to the pitot and static drain tubes (AMM 34-11-01) if they were removed.
(8) Do a check of the portable fire extinguishers:
(9) Weigh the fire extinguishers.
(10) If the weight is less than the quantity shown on the nameplate, remove the fire extinguisher and recharge or replace it.
(11) Install the windshield wipers, if they are not installed.
(12) Install the rain repellent bottle (AMM 30-43-0).
(13) Make sure all the control cabin equipment installations are completed.
(14) Do a test of the operation of the pitot-static system (AMM 34-11-01).
(15) Do a test of the operation of the rain repellent system (AMM 30-43-0).
(16) Do a test of the operation of the windshield wipers (AMM 30-42-0).
(17) Drain all the pitot and static lines.
(18) Visually examine the pitot heads and the static ports for damage of contamination.
(19) Do an operational check of the pitot-static system instruments (AMM 34-11-01).

F. Flight Controls

(1) Do a check of the cable rigging loads in all of the primary and the secondary control systems, but not the Spoiler and Speed Brake Control Systems.

NOTE: See the list of all the system tests for the flight controls below.

(2) Adjust the cables to the correct loads if it is necessary.

(3) Do the operational tests of the primary and the secondary control systems as follows:
   (a) The Aileron and Aileron Trim Control System, Operational Test (AMM 27-11-0)
   (b) The Rudder and Rudder Trim Control System, Operational Test (AMM 27-21-0)
   (c) The Elevator and Tab Control System, Operational Test (AMM 27-31-0)
   (d) The Stall Warning Module, Operational Test (AMM 27-32-21)
   (e) The Horizontal Stabilizer Trim Control System, Operational Test (AMM 27-41-0)
   (f) The Trailing Edge Flap System, Operational Test (Ref 27-51-0)
   (g) The Trailing Edge Flap Position Indicating System, Operational Test (AMM 27-58-01)
   (h) The Spoiler Control System, Operational Test (AMM 27-61-0)
   (i) The Speed Brake Control System, Operational Test (AMM 27-62-0)
   (j) The Leading Edge Flaps and Slats System, Operational Test (AMM 27-81-0)
   (k) The Leading Edge Flaps and Slats Position Indicating System, Operational Test (AMM 27-88-0)

(4) Remove unwanted lubricant applied for storage, but do not use caustic solvents, or cleaning agents.

(5) If it has been more than one month since the last control cable lubrication, examine, replace if necessary, and lubricate all control cables (AMM 12-26-0).

G. External Surface and Doors

CAUTION: DO NOT PERMIT THE REMOVER TO BECOME DRY. DO NOT PERMIT THE REMOVER TO TOUCH THE ACRYLIC MORE THAN 60 MINUTES. DO NOT PERMIT THE REMOVER TO TOUCH THE HIGH-STRENGTH STEEL PARTS (180,000 PSI AND OVER).

(1) Apply a layer approximately 20 mils thick of Ardrox 7050-W remover and permit a dwell time of at least 10 minutes.

(2) Use high pressure water that is less than 140°F to rinse the area.

(3) Remove the tape from the control cabin windows and windshields, external openings, doors, hatches and nose radome.

(4) Lubricate all the external doors (AMM 12-25-21, 12-25-41, 12-25-51, and 12-25-91).

(5) Visually examine the door seals for flat spots or deterioration.

(6) Do a check of the internal and external door handles on the entry and service doors for the correct torque loads.

(7) Operate the internal and the external handle many times.

NOTE: Use the internal and the external handle to make sure the operation of the handles are smooth.

H. Hydraulic System
   (1) Do a check of all the hydraulic system components and replace them if it is necessary.

       NOTE: To replace a component, follow the applicable maintenance manual procedure.

   (2) Supply pressure to the hydraulic system and do a check for leaks (AMM 29-11-0).
   (3) Service the hydraulic system reservoirs (AMM 12-12-0)
   (4) Service the parking brake accumulator (AMM 12-15-11).
   (5) Bleed and do a test of the hydraulic system:
       (a) The Main (Left, Right and Center) Systems (AMM 29-11-0)
       (b) The Hydraulic Fluid Quantity Indicating System (AMM 29-33-0)
       (c) The Hydraulic Pressure Indicating System (AMM 29-31-0)
       (d) The Hydraulic Fluid Overheat Warning System (AMM 29-32-0)
   (6) Replace these hydraulic system filters:
       (a) The pump case drain module filters (AMM 29-11-41)
       (b) The return module filter (AMM 29-11-111)

I. Equipment/Furnishings
   (1) Remove the dust covers from the seats, if installed.
   (2) Fill the toilet tanks and cycle flush systems to make sure they operate correctly.
   (3) Do a test of all the galley and lavatory plumbing and drains for air locks and leaks.
   (4) Replace the carpets and seats if they are not installed.
   (5) Do a check of the pressure of the escape slide bottle and rearm all the automatic escape slides.
   (6) Do a check of the portable fire extinguishers:
       (a) Weigh the portable fire extinguishers.
       (b) If the weight is less than the quantity shown on the nameplate, recharge or replace it.

J. Landing Gear
   (1) Remove the wheel chocks and covers from all the wheels.
   (2) Make sure the shock struts of the landing gear are serviceable (AMM 12-15-31, 12-15-41).
   (3) Inflate the tire to the correct pressure (AMM 12-15-51).
   (4) Remove the MIL-C-16173, Class 2 per BAC5835.
   (5) Remove the unwanted MIL-G-21164 grease from the inner cylinders of the shock struts.
   (6) Lubricate all the joints with lubrication fittings with BMS 3-33 (AMM 12-25-131, 12-21-11, and 12-21-21).
   (7) Tow or taxi the airplane sufficiently before a flight to remove flat spots from the tires.
   (8) Lubricate the landing gear doors.
   (9) Visually examine the landing gear door seals for flat spots or deterioration (AMM 32-12-01).

K. Oxygen System

WARNING: FOLLOW PROCEDURES AND CAUTIONS IN AMM 12-15-21/301 WHEN YOU REMOVE AND INSTALL THE OXYGEN CYLINDERS. IF YOU ARE NOT CAREFUL, YOU CAN CAUSE INJURY TO PERSONS.

(1) Do a check of the oxygen system for corrosion.
(2) Flush the plumbing for the crew oxygen system with dry nitrogen or clean air.
(3) Install the portable oxygen bottles and the crew oxygen bottle (with the regulator).
(4) Open the high pressure valves on the oxygen supply cylinders.
(5) Install oxygen masks for the crew.

NOTE: You must examine crew oxygen masks that have been in storage for more than 3 months. The rubber and plastic components must be in good condition.

(6) Plug the crew oxygen masks into the activated oxygen system and make sure they work correctly and supply oxygen.
(7) Make sure the passenger oxygen system and mask drop system operate correctly (AMM 35-21-0).

L. Potable Water System
(1) Remove the plugs from all drains.
(2) Disinfect the water system and install a new filter (AMM 12-14-0).
(3) Service the water tanks (AMM 12-14-0).
(4) Install a new filter.

M. Wing, Leading Edge, Trailing Edge, Empennage and Fuel System
(1) Drain all the collected water from the fuel tanks, surge tanks and boost pumps.
(2) Drain and aerate the fuel tanks and examine them for corrosion or deterioration if they have not been examined in the last 60 days.
(3) Examine the bladder cells.
(4) Fully examine all areas for corrosion or deterioration.

NOTE: Make sure you examine the vertical and horizontal stabilizer balance bays, access panels and all non-metallic parts (seals).

(5) Lower (or open) all flaps (the leading and trailing edge) and spoilers and examine them for corrosion.
(6) Do a check of the structural drain holes to make sure they are open.
(7) Lubricate all the flap tracks (AMM 12-22-51).
(8) Remove all cheesecloth, red flags and tape from all vent and cavity vent openings.
(9) Make the tanks serviceable (AMM 28-11-0).
(10) Activate the Power Plants (AMM 71-00-1, Power Plant).
(11) Activate the APU (AMM 49-11-0).

(12) In very cold weather, drain fuel tank sumps prior to refueling to remove water from fuel tanks if the airplane has been idle for more than 45 minutes prior to refueling. Drain fuel tank sumps again after refueling if the airplane has been idle for 2 hours or more after refueling, prior to departure.

CAUTION: IF YOU CAN DRAIN FUEL FROM DRAIN VALVE AFTER YOU APPLIED HOT AIR TO THE EXTERIOR FOR 3 TO 5 MINUTES, DO NOT THINK THAT ALL THE ICE IS MELTED. ICE ADJACENT TO THE DRAIN VALVE UNIT CAN MELT AND LET SOME WATER AND FUEL FLOW FROM THE DRAIN. BUT A PIECE OF ICE CAN STAY BEHIND. IF FUEL DOES NOT FLOW FROM THE DRAIN, CONTINUE TO APPLY HOT AIR FOR A SHORT TIME, AND FREQUENTLY DO A CHECK OF FLOW FROM THE DRAIN. CATCH FUEL IN A CONTAINER AND MAKE SURE ALL WATER IS REMOVED.

HEAT APPLIED TO THE SUMP DRAIN VALVES FOR OUTBOARD MAIN AND RESERVE TANKS WILL NOT REMOVE ICE WHICH HAS COLLECTED IN THE TANK SUMP OR IN DRAIN LINE BETWEEN TANK SUMP AND VALVE. TO REMOVE THIS ICE, YOU MUST PUT THE AIRPLANE IN A WARM HANGAR FOR SUFFICIENT TIME TO MELT ICE. THEN DRAIN SUMPS UNTIL THE WATER IS REMOVED.

HIGH WIND CONDITIONS PARKING

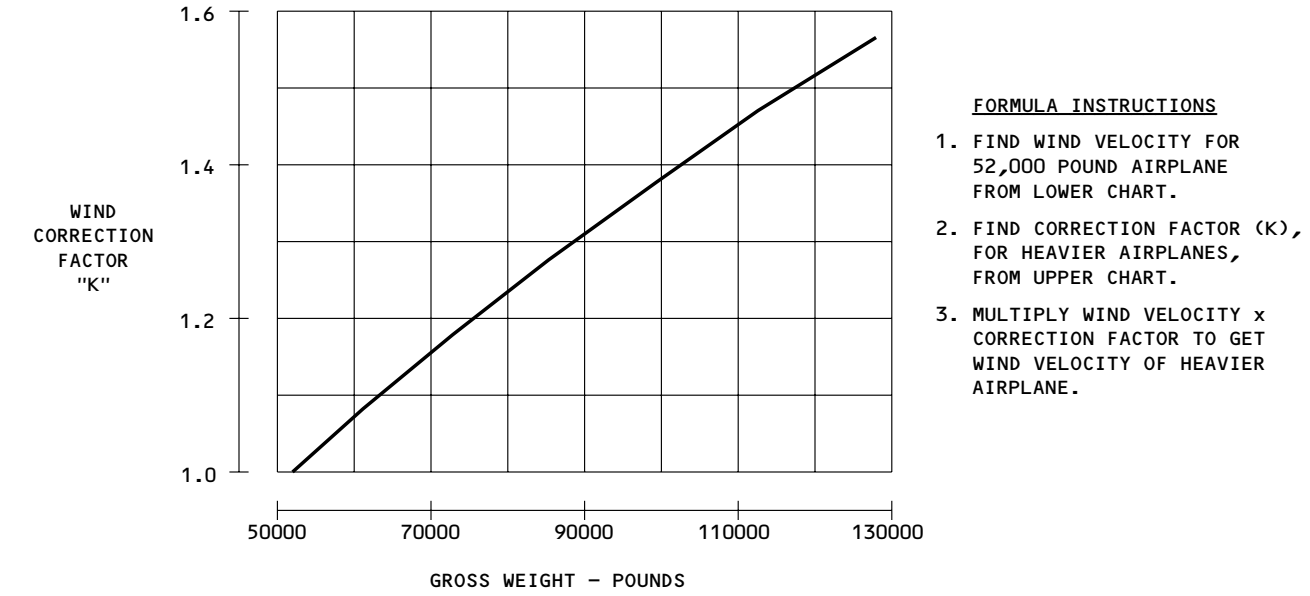
1. General
   A. The airplane is designed to withstand high velocity ground winds from any angle without mooring. Special mooring provisions in the structure are considered unnecessary because of the weight of the airplane, but when high winds are expected extra care is advised. For frontal and side wind effects on the airplane, and pavement condition, see Fig. 201.
   B. The curved lines on the lower chart in Fig. 201 represent the effect high velocity headwinds have on an airplane weighing 52,500 pounds. The heavier the airplane the higher wind velocity it will take to cause the airplane to pitch. To determine how high a wind velocity the heavier airplane can withstand multiply the correction factor for the airplane gross weight by the wind velocity required to cause a 52,500-pound airplane to pitch.
   C. The dashed horizontal lines represent the effects side winds have on an airplane weighing 52,000 pounds. The correction factor can be used to determine the wind velocities that will cause heavier airplanes to yaw, side skid, or roll. Note how side wind effects vary with pavement condition.
   D. It will be noted that horizontal stabilizer position and CG shift have little effect on side winds but can be used to minimize the effects of headwinds. To reduce the possibility of pitching: (1) The CG should be shifted forward and (2) the horizontal stabilizer should be set at an angle near zero degrees (+3 to -2 degrees).

      NOTE: In the NOSE DOWN setting the horizontal stabilizer is deflected up.

2. Equipment and Materials
   A. Refer to 10-11-0.
3. Park Airplane
   A. Park airplane in an uncongested area in accordance with 10-11-0, Park Airplane except for step H. Wheels are to be chocked and parking brake must be applied. If you park the airplane in a congested area, moor the airplane in accordance with section 10-21-0.

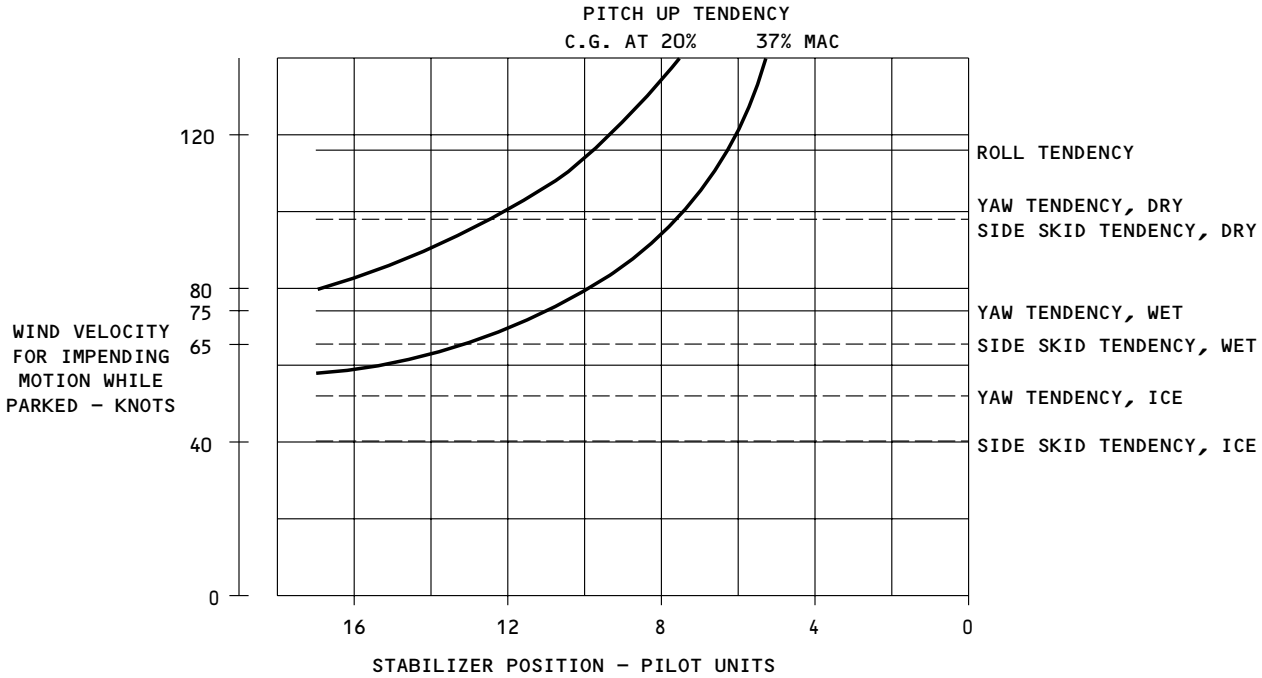
      WARNING: ENSURE THAT WHEEL CHOCKS ARE SECURED. IN HIGH WINDS A LOOSE CHOCK COULD BE DANGEROUS.

   B. Turn on battery switch.



FLAPS UP
GROSS WEIGHT = 52500 POUNDS
CENTER OF GRAVITY (C.G.) = 20% MAC (EXCEPT WHERE NOTED)
SEA LEVEL
STANDARD DAY
ELEVATORS TRAILING

HEADWIND FOR PITCH
CROSSWIND (90 KNOTS FROM FRONT) FOR
ROLL, YAW, AND SIDE SKID



Characteristics of 737 Exposed to Severe Winds
Figure 201 (Sheet 1)

USING INSTRUCTIONS IN THIS EXAMPLE

Aiplane Weight	= 9,500 LB
Horizontal Stabilizer Position	= 10 Degrees
Center of Gravity (C-G)	= 20% MAC
Parking Surface	= Dry/Clear

USE OF FORMULA TO FIND WIND VELOCITY

1. Wind velocity from lower chart causing pitch due to head wind for 52,500 lb airplane	= 90 Knots Approx
2. Correction factor "K" for 95,000 lb airplane from upper chart	= 1.32
3. Wind velocity causing pitch for 95,000 lb airplane	= 90 Knots X 1.32 = 118 knots
4. From lower chart velocity causing Yaw Tendency	= 100 Knots Approx
5. Yaw Tendency for 95,000 lb airplane	= 100 Knots X 1.32 = 132 Knots

Characteristics of 737 Exposed to Severe Wind
Figure 201 (Sheet 2)

C. Set parking brakes on main landing gear by depressing brake pedals and by pulling up the parking brake handle on the captain's control stand. Relieve pressure on brake pedals before releasing parking brake handle.

CAUTION: AFTER PARKING BRAKES HAVE BEEN SET THEY WILL REMAIN EFFECTIVE APPROXIMATELY 8 HOURS. AT THIS TIME THEY SHOULD BE RELEASED, HYDRAULIC PRESSURE RESTORED AND PARKING BRAKES RESET.

D. Turn off battery switch if no longer required.
E. Be sure flaps are in full up position to reduce wing lift.
F. Set the horizontal stabilizer at an angle near zero degrees, 0 to 4 units.

CAUTION: DO NOT RESTRAIN THE CONTROL COLUMN OR RUDDER PEDALS. DOING SO COULD RESULT IN CONTROL SYSTEM DAMAGE.

G. Fuel airplane to its maximum full capacity and move the CG forward as far as possible.
H. Close all doors, hatches and see that all plugs are secured in place.
I. Anchor or remove all stands or movable equipment from the vicinity of the airplane which could collide with the airplane.

MOORING

1. General
   A. The airplane is designed to withstand high velocity ground winds from any angle without mooring. However, when high winds are anticipated extra care is advised. When the airplane is parked on dry pavement and winds of 80 knots and above are expected, moor airplane at wheels to reduce movement and chance of structural damage. On wet pavement moor airplane when winds of 60 knots and above are anticipated. If the surface is covered with ice or snow, moor airplane when winds of 40 knots and above are expected. To help reduce airplane movement, snow and ice should be removed from the surface beneath the wheels. Troughs dug in the ice or snow to place the wheels in will help prevent side skidding and yawing.

HIGH WIND CONDITIONS MOORING

1. General
   A. When special mooring provisions are considered necessary because high winds are expected, mooring at the wheels will reduce airplane movement and the chance of structural damage. With expected winds of 80 knots and above, extra care is advised. For wet or ice covered surfaces, mooring should be accomplished at progressively lower wind velocities. See Fig. 201, 10-13-0 for wind effects on the airplane. Refer to 10-20-0 for mooring and surface conditions. Mooring cables may be attached at the main gear tow lug attachments and to the tiedown fastener on the aft jacking pad. Refer to Chapter 7, Jacking, for jack pad locations.
   B. This procedure has two mooring conditions.
      (1) Moor Airplanes
      (2) Moor Airplanes with engines removed.
2. Equipment and Materials
   A. Towing Eyebolt Assembly - Main Landing Gear - F72719-5, -500 (Preferred)
   B. Tiedown Fastener - Aft Jacking Pad - F80185-1 or -4
   C. Deleted
   D. Fitting Assembly, Nose Mooring - F80226 (not applicable to airplanes with gravel deflectors) composed of:
      (1) Mooring Assembly - F80226-1
      (2) Fly-Away Tube Assembly - F80226-3
3. Moor Airplane
   A. Park airplane as described in 10-11-0, Park Airplane, except that parking brake must be on. Place wheel chocks in front of and behind at least one set of main gear wheels per truck.

      WARNING: ENSURE THAT WHEEL CHOCKS ARE SECURED. IN HIGH WINDS A LOOSE CHOCK COULD BE DANGEROUS.

   B. Turn on battery switch.
   C. Set parking brakes on main landing gear by depressing brake pedals and by pulling up the parking brake handle on the captain's control stand. Relieve pressure on brake pedals before releasing the parking brake handle.

      CAUTION: AFTER PARKING BRAKES HAVE BEEN SET THEY WILL REMAIN EFFECTIVE APPROXIMATELY 8 HOURS. AT THIS TIME THEY SHOULD BE RELEASED, HYDRAULIC PRESSURE RESTORED AND PARKING BRAKES RESET.

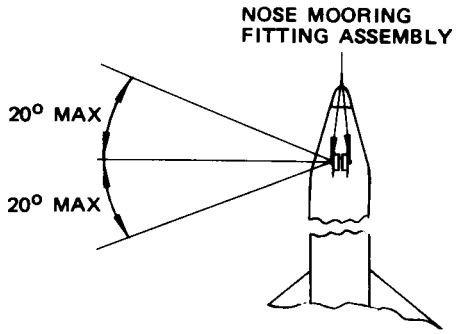
   D. Turn off battery switch if no longer required.

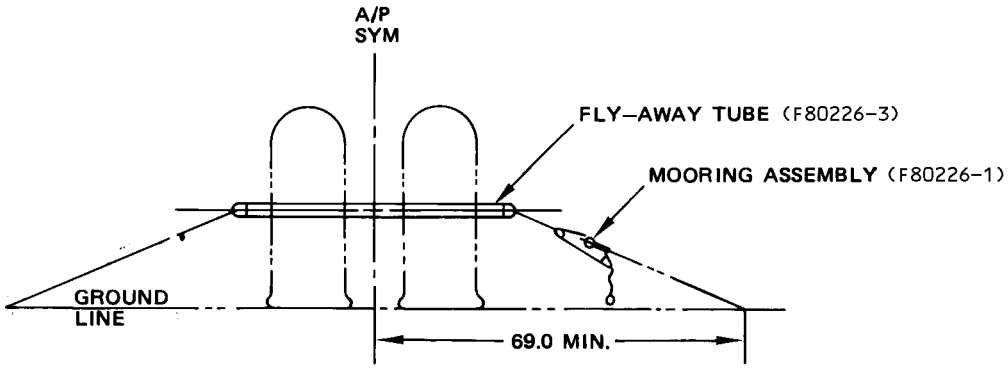
E. Be sure flaps are in full up position to reduce wing lift.

CAUTION: DO NOT RESTRAIN CONTROL COLUMN OR RUDDER PEDALS. DOING SO COULD RESULT IN CONTROL SYSTEM DAMAGE.

F. Attach mooring cables to main landing gear.
   (1) Attach a cable to towing eyebolt inserted into bottom side of each main landing gear.
   (2) Secure mooring cables in aft direction to restrain forward movement and to limit side movement.
G. On airplanes without flyaway tube assembly, attach mooring cables to towing lugs on nose landing gear. Secure cables in forward direction to restrain aft movement and to limit side movement.
H. On airplanes with flyaway tube assembly, attach mooring assembly to nose landing gear (Fig. 201).
   (1) Attach a cable to fly-away tube assembly. Secure mooring cable in side directions.
I. Attach mooring cables to tiedown fastener inserted into aft jacking pad. Secure cables in forward and aft directions.
J. Check tension on all mooring cables to ensure that cables are equally loaded to prevent overloading any landing gear or associated structure.
K. Fuel airplane to maximum fuel capacity and move CG forward as far as possible.
L. Close all doors, hatches, and see that all plugs are secured in place.
M. Anchor, or remove all stands or movable equipment from vicinity of airplane that would collide with airplane.

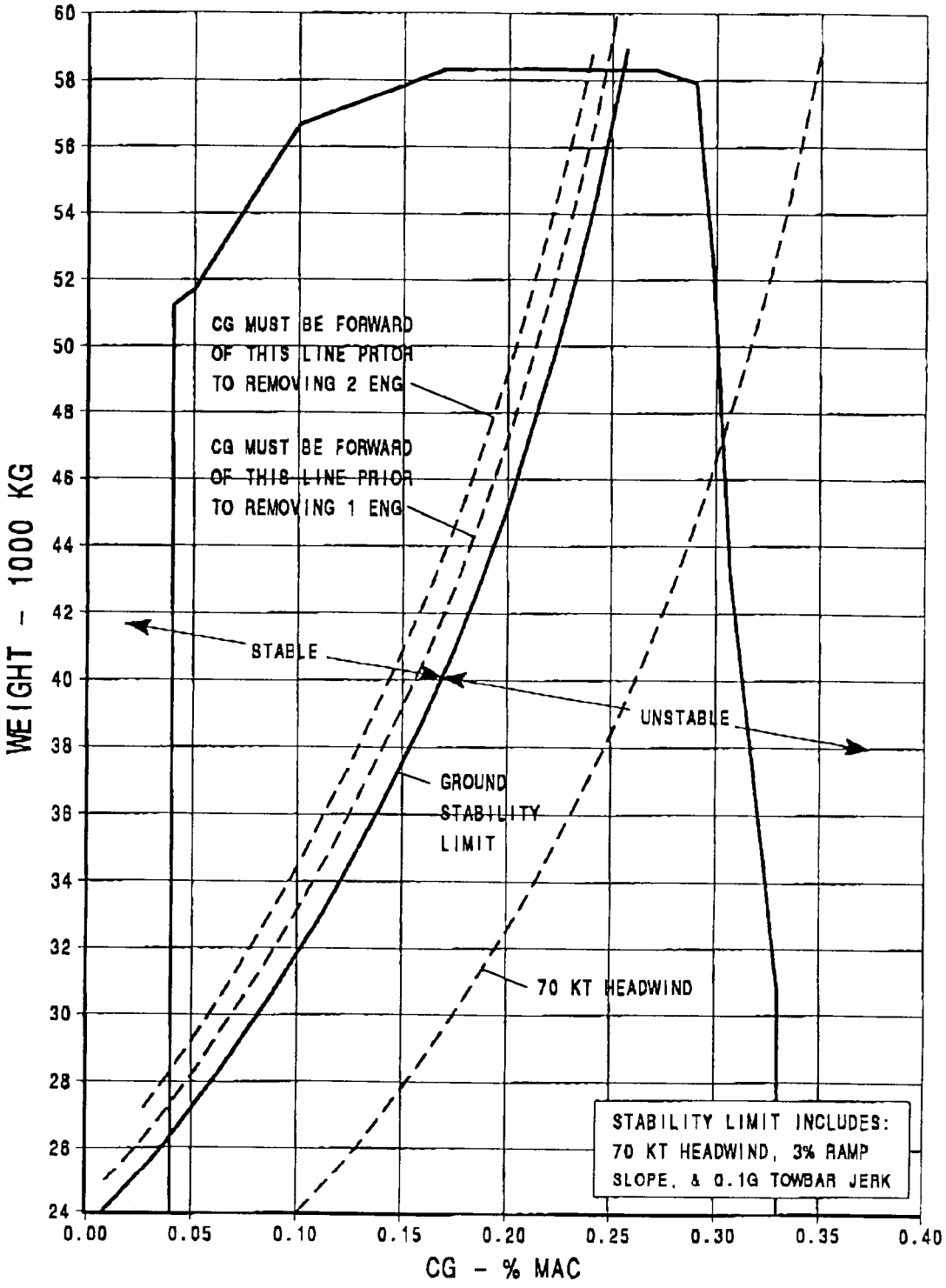
4. MOOR THE AIRPLANE WITH ENGINES REMOVED
   A. Turn the Airplane into the wind.
   B. Moor the airplane per 10-21-0, page 201.
   C. Trim the stabilizer.
   D. Load the forward cargo hold as required to obtain stability per Fig. 202.
   E. Use a tail stand if available.
   F. Follow the stability CG-% MAC to weight parameters in Fig. 202.





NOSE WHEEL MOORING

Mooring Diagram
Figure 201



Airplane Stability in 70 Knot Headwind
Figure 202