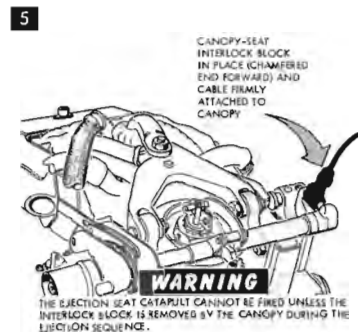
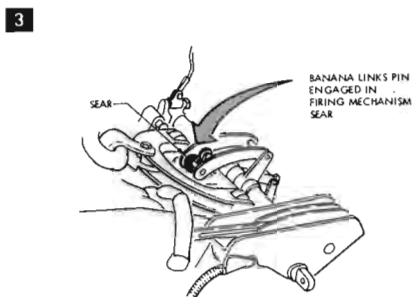
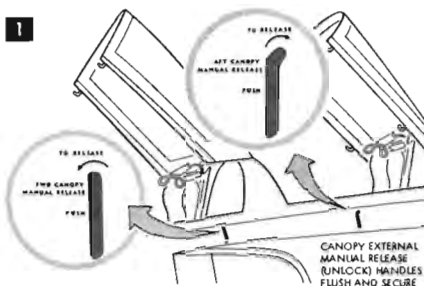


COCKPIT AREA SAFETY CHECK

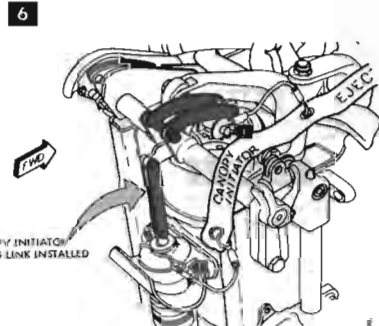
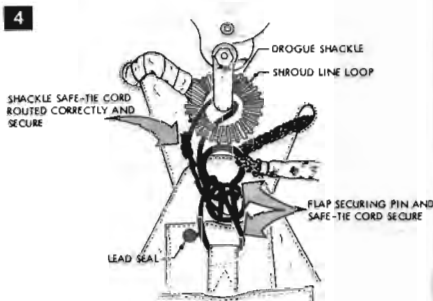
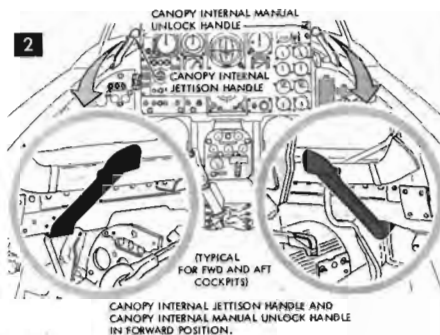
WARNING

THE FOLLOWING ITEMS ARE THE NORMAL PREFLIGHT POSITIONS OF THE CANOPY AND EJECTION SEAT COMPONENTS (IN BOTH COCKPITS), AND MUST BE CHECKED PRIOR TO EACH FLIGHT. FAILURE OF ANY OF THE ITEMS TO BE IN THE PROPER POSITION CAN ENDANGER THE LIFE OF THE AIRCRAFTMAN BY PREVENTING THE PROPER EJECTION SEQUENCE OR LOSS OF THE CANOPY IN FLIGHT.



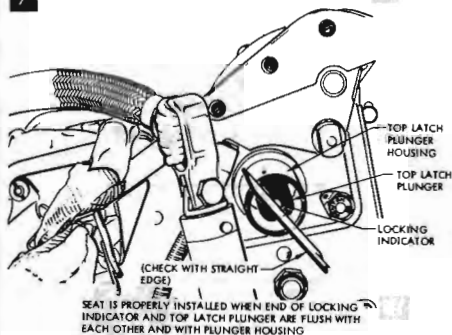
NOTES

1. EJECTION SEAT SAFETY PIN ASSEMBLY. REFER TO EJECTION SEAT SAFETY DEVICES. ASSEMBLY MUST BE REMOVED PRIOR TO FLIGHT.
2. ON SEATS EQUIPPED WITH DROGUE SHUN COCKED INDICATOR,

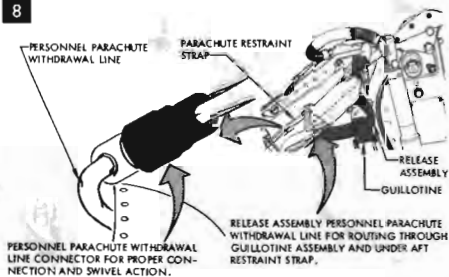


1.1A-32-0975-110

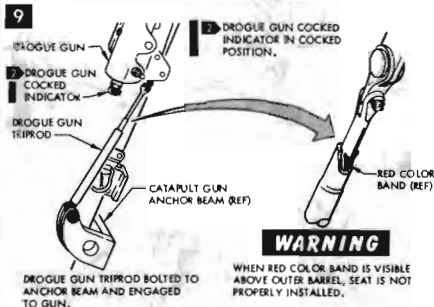
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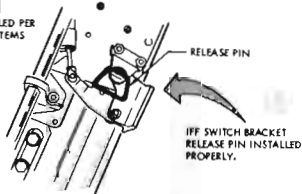
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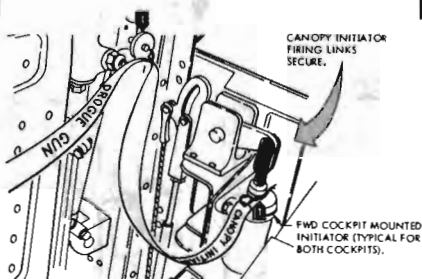
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NOTE

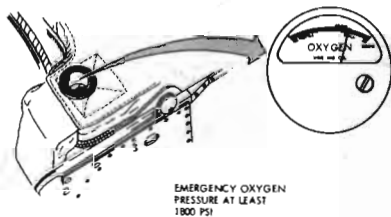
FINGER RING INSTALLED PER
INTERIM AIRCREW SYSTEMS
CHANGE NO. 38.



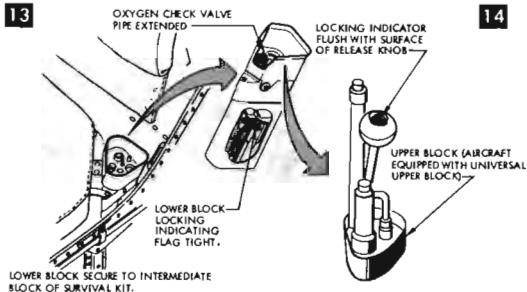
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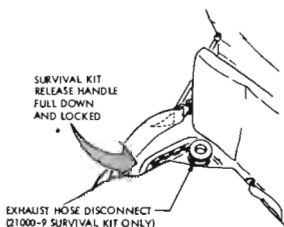
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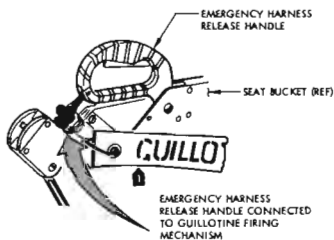
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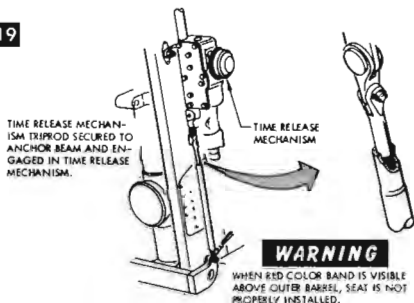
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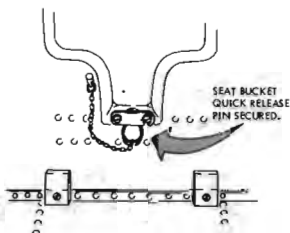
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19



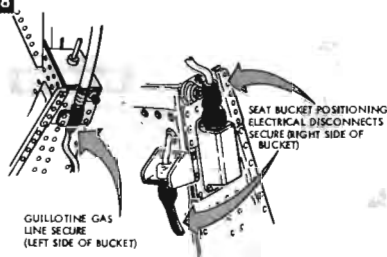
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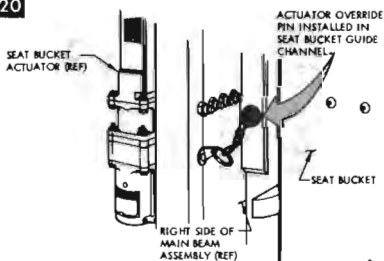
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18



20

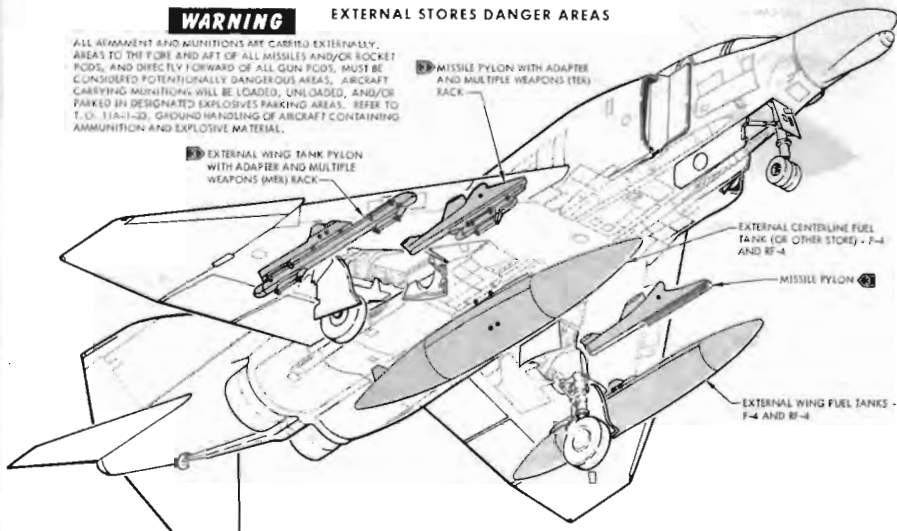


EXTERNAL STORES DANGER AREAS

WARNING

EXTERNAL STORES DANGER AREAS

ALL ARMAMENT AND MUNITIONS ARE CARRIED EXTERNALLY. AREAS TO THE FORE AND AFT OF ALL MISSILES AND/OR ROCKET PODS, AND DIRECTLY FORWARD OF ALL GUN PODS, MUST BE CONSIDERED POTENTIALLY DANGEROUS AREAS. AIRCRAFT CARRYING MUNITIONS WILL BE LOADED, UNLOADED, AND/OR PARKED IN DESIGNATED EXPLOSIVE PARKING AREAS. REFER TO T.O. 11A-1-23, GROUND HANDLING OF AIRCRAFT CONTAINING AMMUNITION AND EXPLOSIVE MATERIAL.

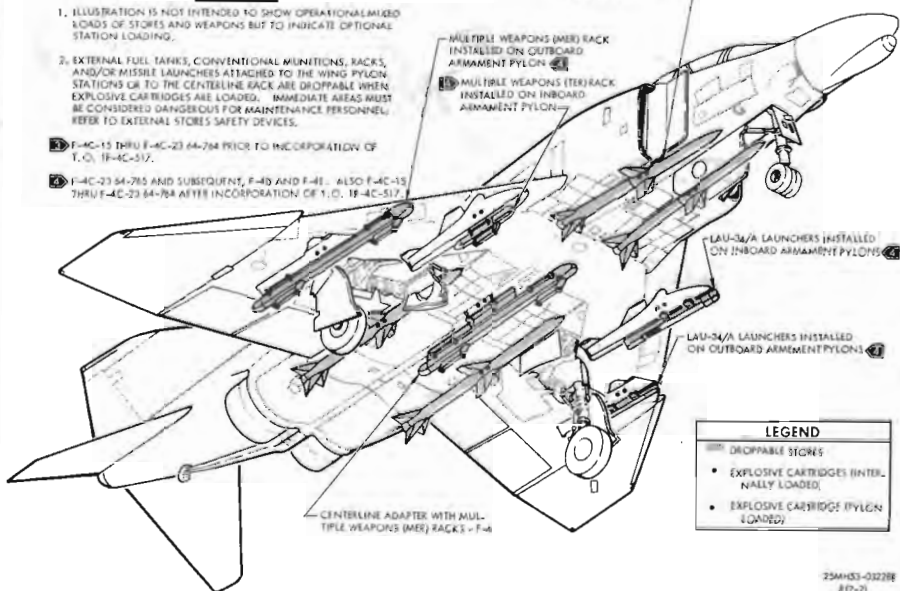


NOTES

1. ILLUSTRATION IS NOT INTENDED TO SHOW OPERATIONAL MIXED LOADS OF STORES AND WEAPONS BUT TO INDICATE OPTIONAL STATION LOADING.
2. EXTERNAL FUEL TANKS, CONVENTIONAL MUNITIONS, RACKS, AND/OR MISSILE LAUNCHERS ATTACHED TO THE WING PYLON STATIONS OR TO THE CENTERLINE RACK ARE DROPPABLE WHEN EXPLOSIVE CARTRIDGES ARE LOADED. IMMEDIATE AREAS MUST BE CONSIDERED DANGEROUS FOR MAINTENANCE PERSONNEL. REFER TO EXTERNAL STORES SAFETY DEVICES.

1. F-4C-15 THRU F-4C-23 64-764 PRIOR TO INCORPORATION OF T.O. 1F-4C-512.

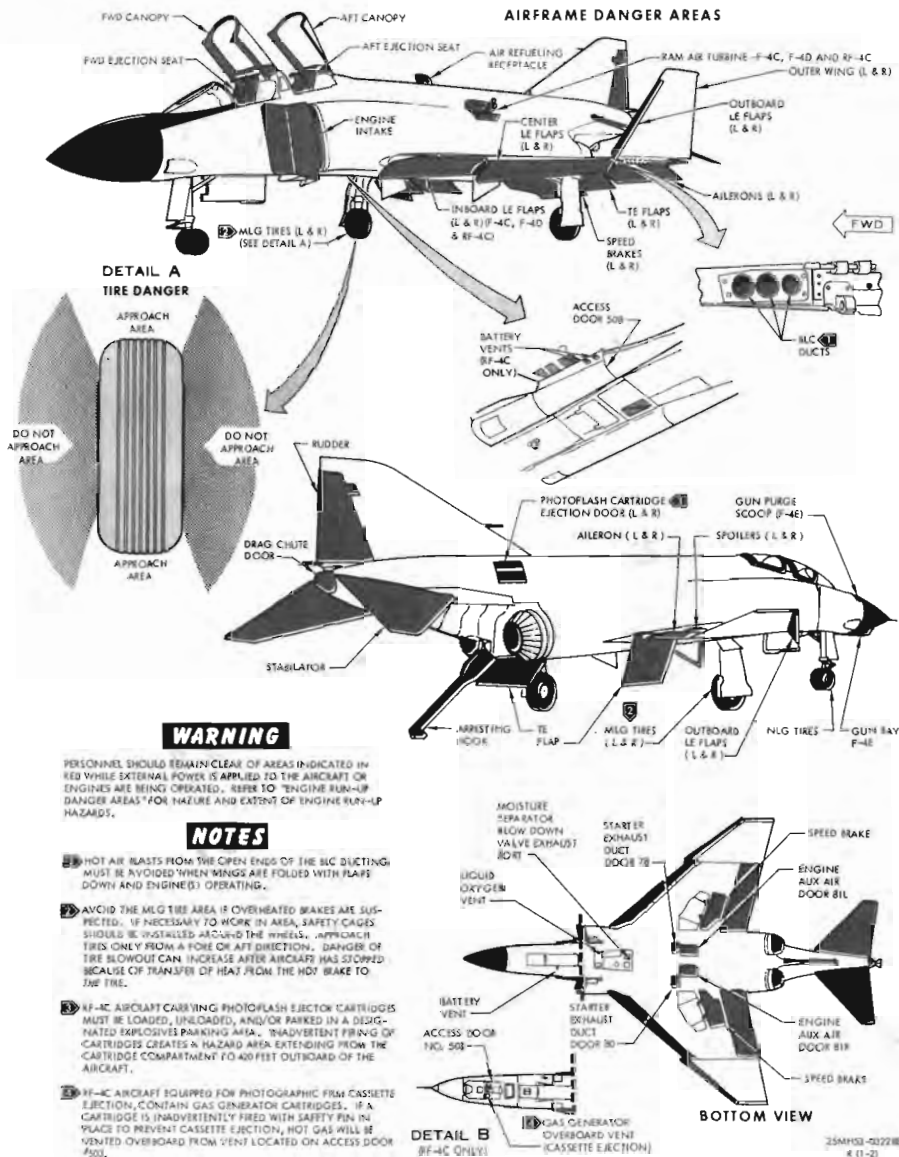
2. F-4C-23 64-765 AND SUBSEQUENT, F-4B AND F-4E. ALSO F-4C-15 THRU F-4C-23 64-764 AFTER INCORPORATION OF T.O. 1F-4C-512.



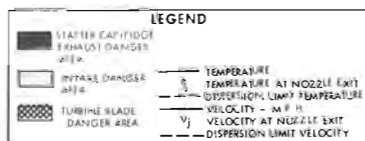
LEGEND

DROPPABLE STORES

- EXPLOSIVE CARTRIDGES (INTERNALLY LOADED)
- EXPLOSIVE CARTRIDGE (PYLON LOADED)



DANGER AREAS

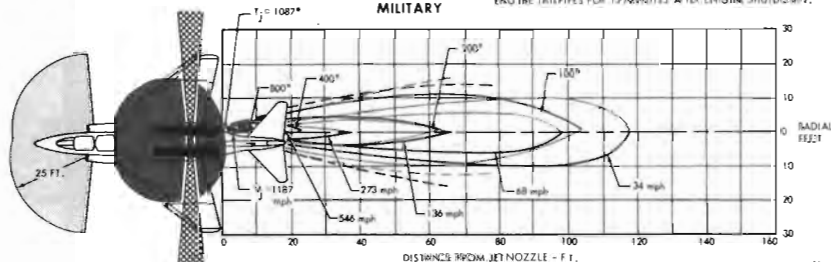


ENGINE, INTAKE AND EXHAUST AND STARTER CARTRIDGE EXHAUST DANGER AREAS

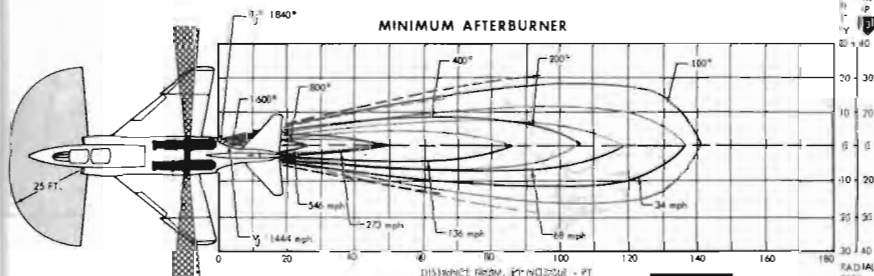
WARNING

DID NOT ENTER THE DANGER AREA IMMEDIATELY AFTER THE ENGINE SHUTDOWN FOR 15 MINUTES AFTER ENGINE SHUTDOWN.

MILITARY



MINIMUM AFTERBURNER



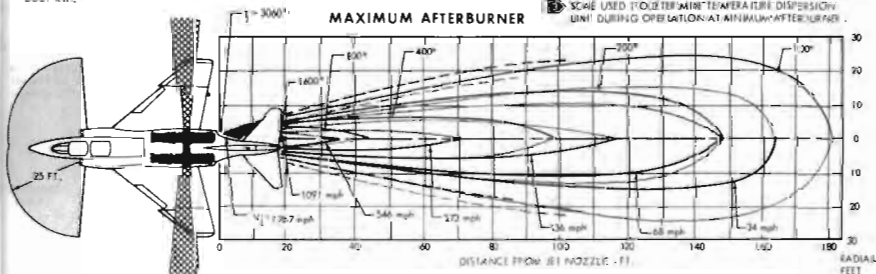
WARNING

ALL HIGH THRUST SETTINGS, THE DANGER AREAS AROUND THE INTAKE DUCTS MAY BE ENLARGED UP TO AS FOUR FEET AFT OF THE DUCT LIP.

NOTES

1. ALL RATINGS GIVEN ARE FOR A STATIC AIRCRAFT AT SEA LEVEL IN A STANDARD DAY.
2. FOR CLARITY, ONLY ONE ENGINE JET THRUST IS SHOWN.
3. SCHE USED TO DETERMINE TEMPERATURE DISPERSION LIMIT DURING OPERATION AT MINIMUM AFTERBURNER.

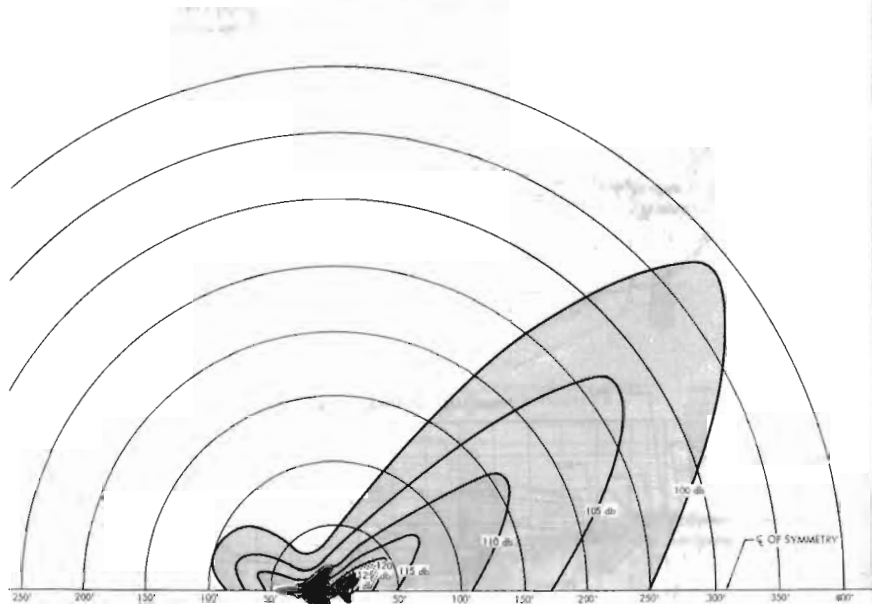
MAXIMUM AFTERBURNER



254953-1979
R(1-4)

WARNING

PERSONNEL EXPOSED TO HIGH NOISE LEVELS RESULTING FROM JET ENGINE OPERATION CAN SUFFER PHYSICAL INJURY OR POSSIBLE PERMANENT IMPAIRMENT OF HEARING. APPROPRIATE EAR DEFENDERS MUST BE WORN.



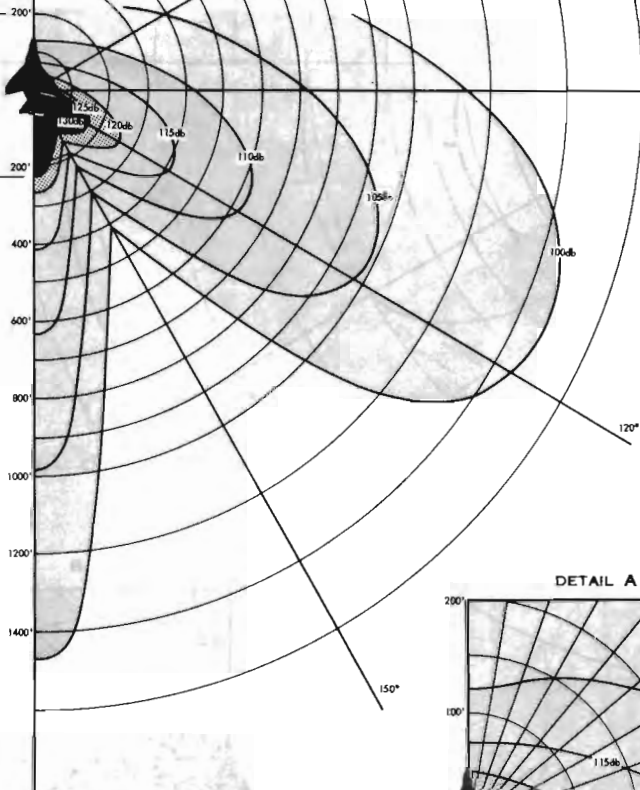
NOISE LEVEL HAZARDS

1. IF ENGINES ARE TO BE OPERATED ON THE GROUND FOR MORE THAN 5 MINUTES, AIRCRAFT SHOULD BE MOVED TO AN ISOLATED AREA OR IN A NOISE SUPPRESSION FACILITY. NOISE DANGER PATTERNS SHOWN ARE BASED ON CALCULATED DATA. INTERMEDIATE POWER SETTINGS, OBSTRUCTIONS, REFLECTIONS, AND WEATHER CONDITIONS CAN CAUSE THE PATTERNS TO VARY.
2. PERSONNEL REQUIRED TO WORK IN AREA WITH NOISE LEVELS ABOVE 125 DECIBELS (DB) MUST WEAR PROTECTIVE HELMET OR HEADSET IN ADDITION TO EAR PLUGS, AND PERIOD OF EXPOSURE MUST BE HELD AS SHORT AS POSSIBLE.
3. NOISE LEVELS ABOVE 85 DB BUT LESS THAN 125 DB, REQUIRE THE USE OF EAR DEFENDERS. APPROPRIATE EAR PLUGS OR SOUND BARRIER EAR MUFFS (MIL-1/78, CLARK DAVID CO. OR EQUIVALENT) SHOULD BE WORN.
4. NOISE LEVELS OF 85 DB AND BELOW ARE CONSIDERED SAFE WITHOUT SPECIAL PRECAUTIONS OR PROTECTION.

25mH53-0
1 (2-4)

SEE DETAIL "A" FOR
ENLARGED VIEW

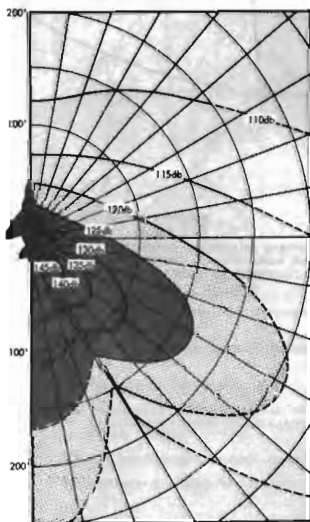
NOISE DANGER AREAS MILITARY POWER



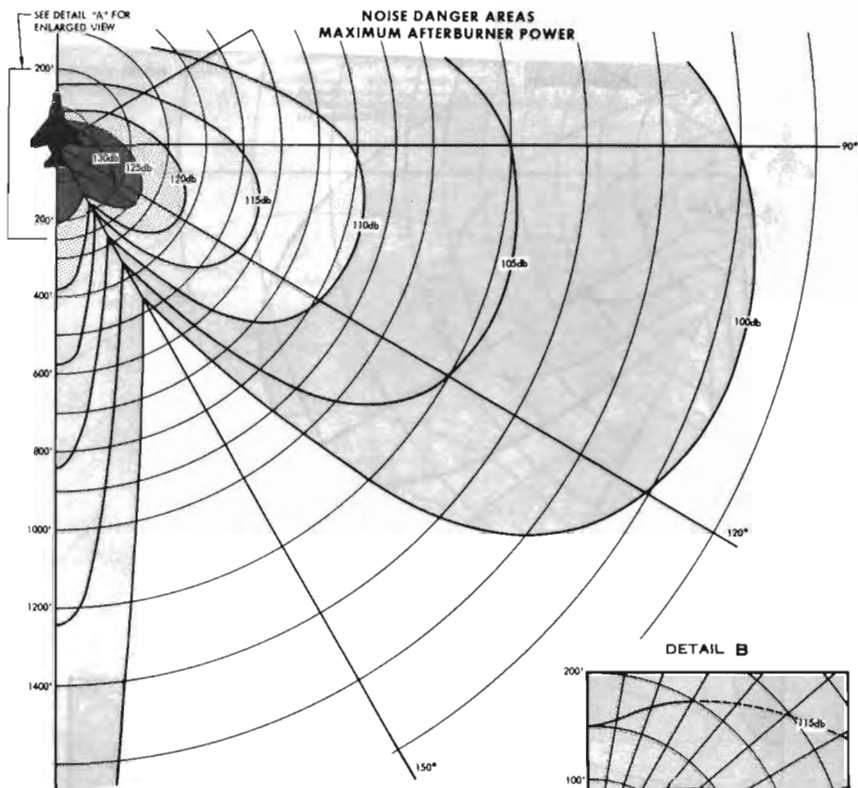
NOTE

NOISE PATTERNS ARE ESTIMATED OUTWARD OF 300 FT. RADIUS. INTERMEDIATE POWER SETTINGS, OBSTRUCTIONS, REFLECTIONS, AND WEATHER CONDITIONS CAN CAUSE THE PATTERNS TO VARY.

DETAIL A

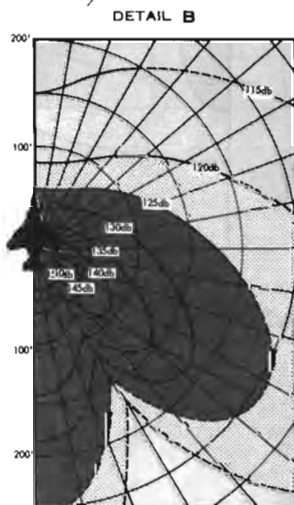


25M453-13793
8 (3-4)

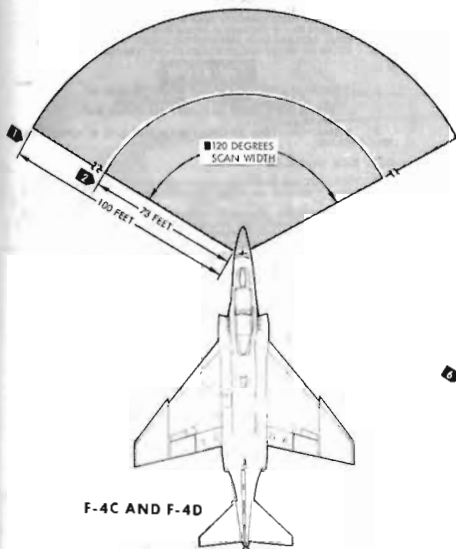


NOTE

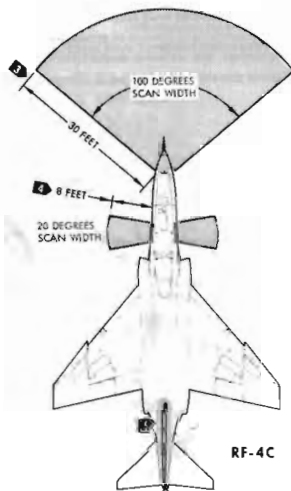
NOISE PATTERNS ARE ESTIMATED OUTWARD OF 200 FT. RADIUS. INTERMEDIATE POWER SETTINGS, OBSTRUCTIONS, REFLECTIONS, AND WEATHER CONDITIONS CAN CAUSE THE PATTERNS TO VARY.



25WH53-13
8(4-4)



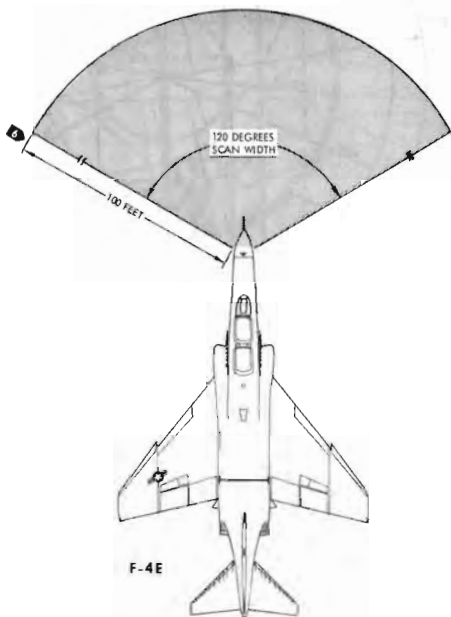
F-4C AND F-4D



RF-4C

WARNING

IN ADDITION TO RF RADIATION HAZARD ZONES AS SHOWN, GROUND OPERATION OF AN/ARC-115 HF RADIO (W-40) CAN RESULT IN ACCIDENTAL FIRING OF EXPOSED ELECTRO-EXPLOSIVE DEVICES (EED) UP TO 1200 FEET DISTANCE FROM ANTENNA; ASSEMBLED WEAPONS WITH EED INSTALLED UP TO 125 FEET DISTANCE FROM ANTENNA. ALL RF OPERATING EQUIPMENT SHALL BE TURNED OFF BEFORE BRINGING EED INTO AREA. REFER TO RADIATION HAZARD DISTANCE CHARTS.



F-4E

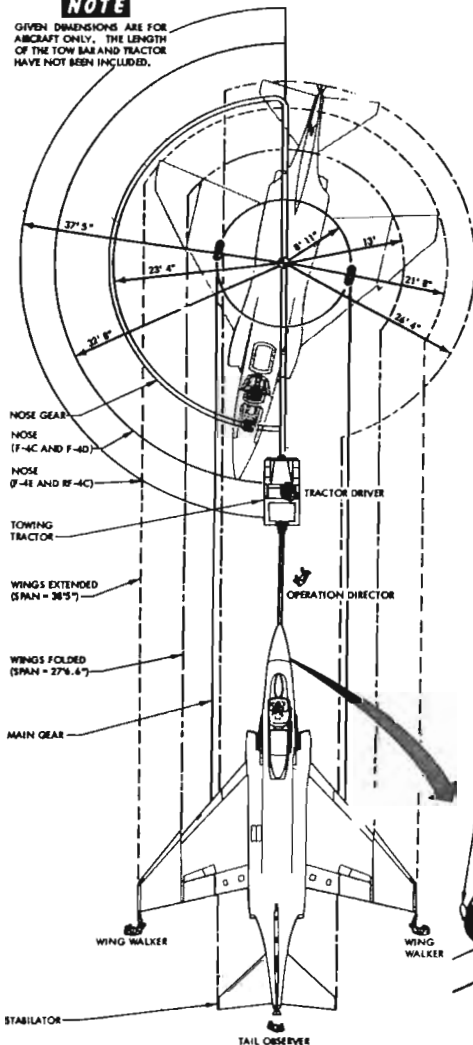
NOTES

1. SIMULTANEOUS OPERATION OF APG AND APA TRANSMITTERS OF FIRE CONTROL RADAR.
2. OPERATION OF EITHER APG OR APA TRANSMITTER OF FIRE CONTROL RADAR.
3. OPERATION OF AN/APG-99 RADAR.
4. OPERATION OF AN/APG-102 RADAR HAPPING SET. REFER TO GROUND SAFETY DEVICES FOR INSTALLATION OF RADIATION COVERS.
5. HF COMMUNICATIONS ANTENNA, AN/ARC-105 HF RADIO.
6. OPERATION OF AN/APG-120 RADAR SYSTEM.

TOWING

NOTE

GIVEN DIMENSIONS ARE FOR AIRCRAFT ONLY. THE LENGTH OF THE TOW BAR AND TRACTOR HAVE NOT BEEN INCLUDED.



AIRCRAFT PREPARATION

- REMOVE NOSE LANDING GEAR JACKING SAFETY PIN FROM NOSE WHEEL STEERING POWER UNIT IF APPLICABLE.
- INSTALL BOTH MAIN LANDING GEAR ACTUATOR SAFETY STRUTS AND THE NOSE LANDING GEAR ACTUATOR SAFETY STRUTS.
- CHECK EMERGENCY WHEEL BRAKE PRESSURE GAUGE (REAR, TOP RIGHT CORNER OF NOSE LANDING GEAR WHEEL WELL) FOR READING OF 2700 PSI OR GREATER. IF PRESSURE IS BELOW 2700 PSI, RECHARGE EMERGENCY BRAKE ACCUMULATOR THROUGH THE UTILITY HYDRAULIC SYSTEM.
- CLOSE OR SECURE ACCESS DOORS BEFORE TOWING.

CAUTION

MINIMUM STRUCTURAL ACCESS DOORS SPECIFIED IN T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION SHOULD BE INSTALLED TO PREVENT STRUCTURAL DAMAGE TO AIRCRAFT.

- INSTALL WING FOLD JURY STRUT IF AIRCRAFT IS TO BE TOWED WITH WINGS FOLDED.

TOW BAR HOOK-UP

- ROLL TOW BAR UP TO NOSE GEAR WHEELS WITH ADJUSTABLE ARMS POSITIONED TO PROVIDE THE WIDEST POSSIBLE OPENING BETWEEN AXLE PINS.
- ADJUST HEIGHT OF ARMS BY TURNING TOW BAR ELEVATION CRANK UNTIL ARMS ARE ALIGNED HORIZONTALLY WITH NOSE GEAR AXLE.
- ROTATE TOW BAR ADJUSTABLE ARM CRANK UNTIL TOWING PINS COMPLETELY ENGAGE AXLE RECESS.

CAUTION

IT IS IMPORTANT THAT TOW BAR IS PROPERLY LOCKED ON NOSE WHEEL BEFORE TOWING.

- ROTATE ELEVATION CRANK TO RAISE TOW BAR WHEELS HIGH ENOUGH TO CLEAR GROUND LEVEL THROUGHOUT TOWING OPERATION.

TOWING OPERATION

- ENSURE THAT ALL EXTERNAL POWER IS REMOVED FROM THE AIRCRAFT (REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION) AND THAT ALL OBSTACLES ARE CLEAR OF THE TOWING AREA.
- STATION ONE (1) MAN AT EACH WINGTIP, TAIL, TRACTOR, FORWARD COCKPIT AND AN OPERATION DIRECTOR POSITIONED IN VIEW OF ALL MEMBERS OF CREW.

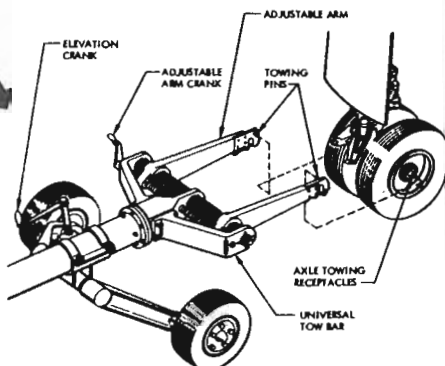
CAUTION

TO PREVENT POSSIBLE DAMAGE TO THE NOSE GEAR OR RELATED STRUCTURE, THE AIRCRAFT SHOULD NOT BE TOWED UP AN INCLINE IN EXCESS OF 7.5 DEGREES (APPROXIMATELY 1.5 INCHES RISE PER FOOT). AIRCRAFT CAN BE LOADED WITH INTERNAL FUEL AND FULL EXTERNAL WING TANKS, OR EQUIVALENT WEIGHT IN OTHER STORES, FOR TOWING ON INCLINE DEFINED ABOVE.

CAUTION

THE AIRCRAFT SHOULD NOT BE MOVED FOR A PERIOD OF APPROXIMATELY 5 MINUTES AFTER ELECTRICAL POWER HAS BEEN TURNED OFF, OR DAMAGE TO GYRO STOP PINS MAY RESULT.

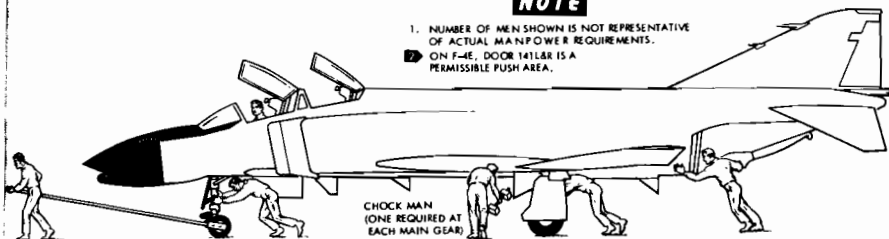
- TURNING THE TOW BAR 90° TO THE AXIS OF THE AIRCRAFT WILL PROVIDE THE SHORTEST OVERALL TURN RADIUS.
- DO NOT START OR STOP SUDDENLY, OR TOW IN EXCESS OF 5 MPH. WEATHER AND SURFACE CONDITIONS MUST GOVERN DEGREE OF CAUTION FOR TOWING.
- USE EMERGENCY BRAKE SYSTEM FOR TOWING. PULL EMERGENCY BRAKE HANDLE, IN COCKPIT AND ACTIVATE BRAKE PEDALS IN NORMAL MANNER. A FULLY CHARGED BRAKE ACCUMULATOR WILL ALLOW APPROXIMATELY 14 TO 16 BRAKE APPLICATIONS.
- ON COMPLETION OF TOWING OR RECHARGING UTILITY HYDRAULIC SYSTEM RETURN EMERGENCY BRAKE HANDLE BY PULLING AFT, RELEASING RATCHET, AND ALLOWING HANDLE TO MOVE FORWARD AND SEAT.
- LOWER TOW BAR WHEELS AND RELEASE TOW BAR FROM NOSE GEAR.



PUSHING

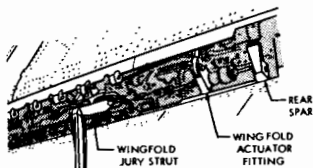
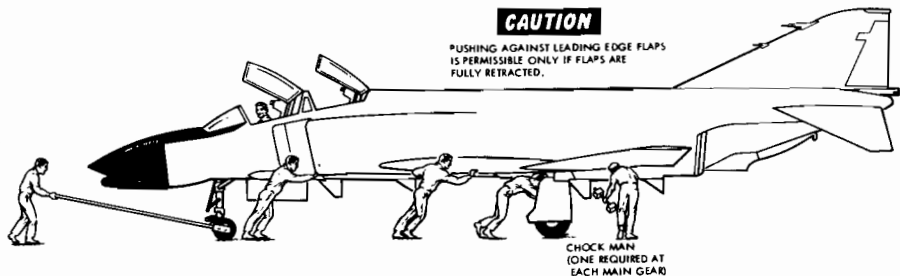
NOTE

1. NUMBER OF MEN SHOWN IS NOT REPRESENTATIVE OF ACTUAL MANPOWER REQUIREMENTS.
2. ON F-4E, DOOR 1411&R IS A PERMISSIBLE PUSH AREA.



CAUTION

PUSHING AGAINST LEADING EDGE FLAPS IS PERMISSIBLE ONLY IF FLAPS ARE FULLY RETRACTED.



WINGFOLD PUSH AREA

SPECIAL TOOLS AND TEST EQUIPMENT

ADJUSTABLE WHEEL CHOCKS (2 REQ'D)	4204594-2
NOSE LANDING GEAR ACTUATOR SAFETY STRUT	MD3238-305
MAIN LANDING GEAR ACTUATOR SAFETY STRUT	53E32000-1
NOSE LANDING GEAR DOOR UNLOCK LOCK PIN	MD32147-1
MAIN LANDING GEAR INBOARD DOOR LOCK PIN	53E50001-1
WING FOLD JURY STRUT (2 REQ'D IF WINGS ARE FOLDED)	MD3207-1

MANPOWER REQUIREMENTS

15 MEN ARE REQUIRED TO PUSH THE AIRCRAFT LOADED WITH INTERNAL FUEL AND ON A HARD LEVEL SURFACE.

PUSHING OPERATION

CAUTION

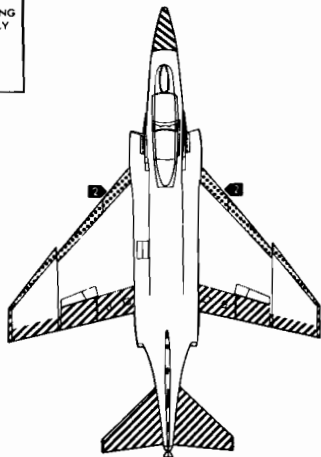
DETERMINE THAT THE MINIMUM STRUCTURAL ACCESS DOOR REQUIREMENTS FOR AIRCRAFT TOWING, SPECIFIED IN T.O. 1F-4C-2-25 (AIRCRAFT FAMILIARIZATION) ARE MET, OR STRUCTURAL DAMAGE TO THE AIRCRAFT MAY RESULT.

- BEFORE PUSHING AIRCRAFT, INSTALL THE NOSE AND MAIN LANDING GEAR ACTUATOR SAFETY STRUTS, NOSE LANDING GEAR DOOR UNLOCK LOCK PIN, AND MAIN LANDING GEAR INBOARD DOOR LOCK PIN. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- STATION A MAN IN THE COCKPIT TO APPLY BRAKES AS REQUIRED.

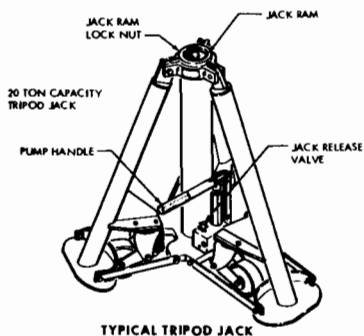
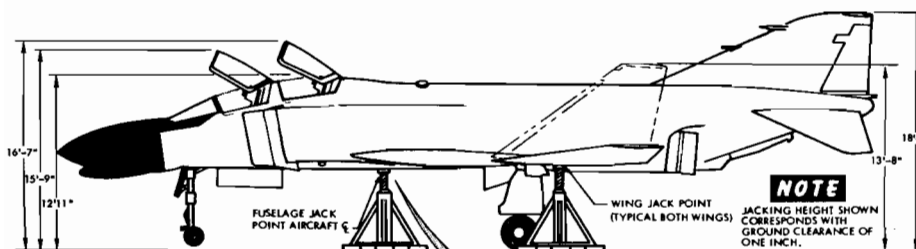
CAUTION

USE EMERGENCY BRAKE SYSTEM FOR ALL AIRCRAFT WHEEL BRAKING APPLICATION WHEN PUSHING OR TOWING. A FULLY CHARGED EMERGENCY BRAKE SYSTEM IS GOOD FOR APPROXIMATELY 14 TO 16 BRAKE APPLICATIONS.

- SEE TOWING ILLUSTRATION FOR PIVOT POINTS AND TURNING POINT.
- DURING PUSHING OPERATION, OBSERVE ALL NORMAL GROUND HANDLING PRACTICES AND PRECAUTIONS MENTIONED IN TOWING ILLUSTRATION.



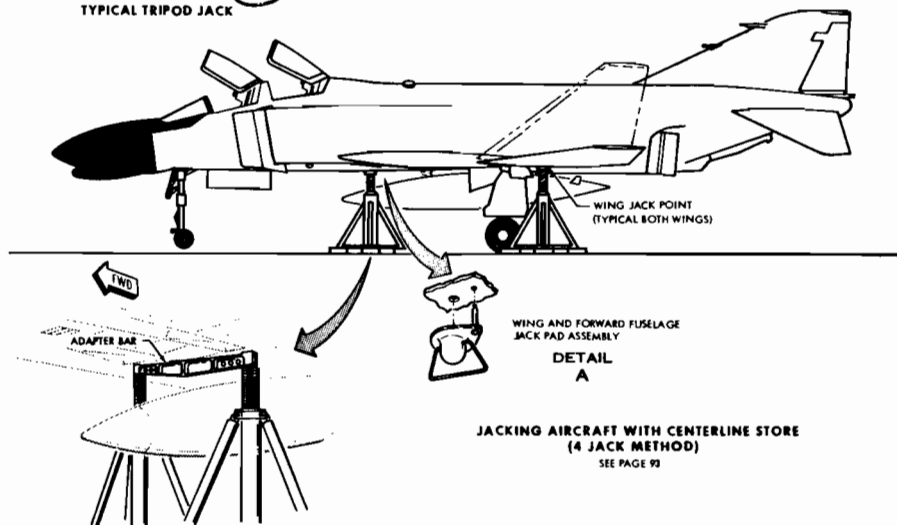
JACKING



TYPICAL TRIPOD JACK

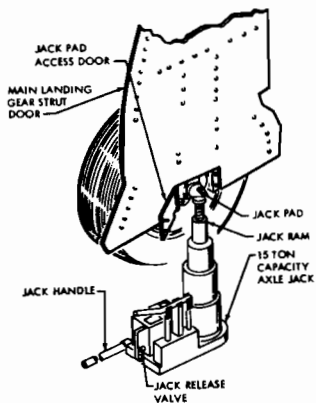


JACKING AIRCRAFT WITHOUT CENTERLINE STORE
(3 JACK METHOD)
SEE PAGE 92



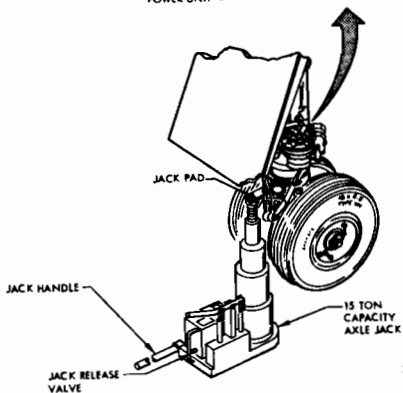
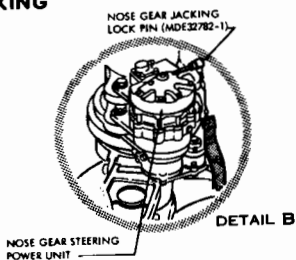
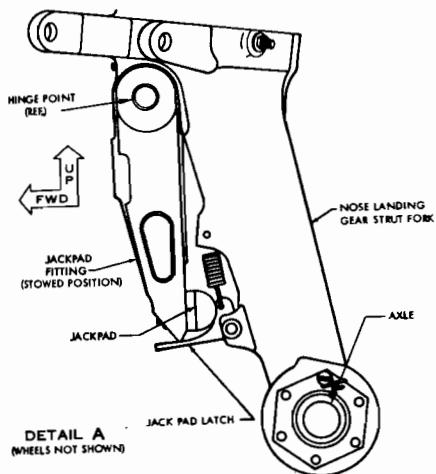
MAIN LANDING GEAR AXLE JACKING

SEE PAGE 92



NOSE LANDING GEAR AXLE JACKING

SEE PAGE 92



2M453-03010P

MAIN LANDING GEAR AXLE JACKING

SPECIAL TOOLS AND EQUIPMENT

HYDRAULIC AXLE JACK (15 TON CAPACITY)	37D1001
ADJUSTABLE WHEEL CHOCK (2 REQ'D)	42D6594-2
MAIN LANDING GEAR ACTUATOR SAFETY STRUT (2 REQ'D)	53E320000-1
MAIN LANDING GEAR INBOARD DOOR LOCK PIN (2 REQ'D)	53E050001-1
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4C, F-4D AND RF-4C)	MD53238-305
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4E)	53E320051-1
NOSE LANDING GEAR DOOR UPLATCH SAFETY PIN	MD532147-1

AIRCRAFT PREPARATION

- INSTALL LANDING GEAR ACTUATOR SAFETY STRUTS, MAIN LANDING GEAR DOOR LOCK PINS, AND NOSE LANDING GEAR DOOR UPLATCH SAFETY PIN. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- IF ACCESS DOORS HAVE BEEN REMOVED, INSTALL THE MINIMUM STRUCTURAL ACCESS DOORS REQUIRED FOR JACKING. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- CHOCK THE NOSE LANDING GEAR WHEELS AND THE OPPOSITE MAIN LANDING GEAR WHEEL.

JACKING PROCEDURE

- OPEN HINGED ACCESS DOOR ON OUTBOARD LOWER EDGE OF MAIN LANDING GEAR STRUT DOOR.
- RELEASE LATCH AND MANUALLY WITHDRAW JACK PAD FROM AXLE. THE JACK PAD IS SPRING LOADED AND MUST BE HELD EXTENDED UNTIL CONTACT IS MADE WITH JACK.
- RAISE MAIN LANDING GEAR WHEEL TO MINIMUM REQUIRED HEIGHT.

NOTE

FOR REMOVAL AND INSTALLATION OF ACCESS DOORS WHILE AIRCRAFT IS ON JACKS REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.

LOWERING PROCEDURE

- APPLY A LIGHT COAT OF GREASE TO ENTIRE JACK PAD FITTING FOR CORROSION PREVENTION.
- IF AREA BENEATH AIRCRAFT IS CLEAR, SLOWLY LOWER THE MAIN LANDING GEAR WHEEL. ALLOW SPRING TO RETRACT JACK PAD WHEN PRESSURE IS OFF JACK.
- DETERMINE THAT JACK PAD IS LATCHED IN RETRACTED POSITION.
- CLOSE AND SECURE HINGED DOOR ON MAIN LANDING GEAR STRUT DOOR.

QUALITY ASSURANCE SUMMARY

- JACK PAD LATCHED IN RETRACTED POSITION.
- JACK PAD ACCESS DOOR PROPERLY SECURED.

NOSE LANDING GEAR AXLE JACKING

SPECIAL TOOLS AND EQUIPMENT

HYDRAULIC AXLE JACK (15 TON)	374D1001
WHEEL CHOCKS	42D6594-2
NOSE LANDING GEAR JACK LOCK PIN	MD532782-1
MAIN LANDING GEAR ACTUATOR SAFETY STRUT (2 REQ'D)	53E320000-1
MAIN LANDING GEAR INBOARD DOOR LOCK PIN (2 REQ'D)	53E050001-1
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4C, F-4D AND RF-4C)	MD53238-305
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4E)	53E320051-1
NOSE LANDING GEAR DOOR UPLATCH SAFETY PIN	MD532147-1

AIRCRAFT PREPARATION

- INSTALL THE LANDING GEAR ACTUATOR SAFETY STRUTS, MAIN LANDING GEAR LOCK PINS AND NOSE LANDING GEAR DOOR UPLATCH SAFETY PIN. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- IF ACCESS DOORS HAVE BEEN REMOVED, INSTALL MINIMUM STRUCTURAL ACCESS DOORS REQUIRED FOR JACKING. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- POSITION THE NOSE WHEELS WITHIN 10 DEGREES OF THE NORMAL AT-TRAIL POSITION AND INSTALL THE NOSE LANDING GEAR JACKING SAFETY PIN.
- CHOCK THE MAIN LANDING GEAR WHEELS.

JACKING PROCEDURE

CAUTION

MAXIMUM WEIGHT FOR NOSE LANDING GEAR AXLE JACKING IS 50,000 LBS. JACKING CAN BE ACCOMPLISHED WITH ANY COMBINATION OF ARMAMENT, EXTERNAL FUEL TANKS, AND INTERNAL FUEL WITHIN THIS WEIGHT LIMIT.

- DEPRESS JACK PAD LATCH (DETAIL A) AND PULL SPRING LOADED FITTING TO EXTENDED POSITION.
- POSITION JACK BENEATH JACK PAD AND RAISE JACK RAM UNTIL FIRM CONTACT IS MADE WITH JACK PAD.
- RAISE NOSE LANDING GEAR WHEELS TO DESIRED HEIGHT.

NOTE

FOR REMOVAL AND INSTALLATION OF ACCESS DOORS WHILE AIRCRAFT IS ON JACKS, REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.

LOWERING PROCEDURE

- IF ACCESS DOORS HAVE BEEN REMOVED, INSTALL THE MINIMUM STRUCTURAL ACCESS DOORS REQUIRED FOR JACKING. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- CLEAR AREA BENEATH AIRCRAFT AND LOWER NOSE LANDING GEAR WHEELS SLOWLY.
- REMOVE JACK AND PULL SPRING LOADED JACK PAD LATCH DOWN.
- PULL UP ON JACK PAD FITTING AND THEN LOWER UNTIL ENGAGED WITH AND INTO THE LATCH.
- REMOVE LOCK PIN FROM STEERING UNIT (DETAIL B).

QUALITY ASSURANCE SUMMARY

- JACK PAD FITTING LATCHED.
- NOSE GEAR JACKING LOCKPIN REMOVED FROM STEERING UNIT.

JACKING AIRCRAFT WITHOUT CENTERLINE STORE

THE AIRCRAFT IS PROVIDED WITH THREE STRUCTURAL JACKING POINTS FOR JACKING THE ENTIRE AIRCRAFT WITH TRIPOD JACKS AND JACK PADS.

SPECIAL TOOLS AND EQUIPMENT

MAIN LANDING GEAR ACTUATOR SAFETY STRUT (2 REQ'D)	53E320000-1
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4C, F-4D, AND RF-4C)	MD53238-305
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4E)	53E320051-1
MAIN LANDING GEAR INBOARD DOOR LOCK PIN (2 REQ'D)	53E050001-1
NOSE LANDING GEAR DOOR UPLATCH SAFETY PIN	MD532147-1
FUSELAGE JACK (20 TON CAPACITY - 3 REQ'D)	TYPE MMU-59E/B-28
WING AND FORWARD FUSELAGE JACK PAD ASSEMBLY	53E010004-1
WINGFOLD JURY STRUT (2 REQ'D IF WINGS ARE FOLDED)	MD53207-1

MANPOWER REQUIREMENTS

FOUR MEN REQUIRED. ONE MAN REQUIRED AT EACH JACK AND ONE MAN REQUIRED TO DIRECT OPERATIONS.

AIRCRAFT PREPARATION

- INSTALL THE LANDING GEAR ACTUATOR SAFETY STRUTS, MAIN LANDING GEAR INBOARD DOOR LOCK PINS, AND NOSE LANDING GEAR DOOR UPLATCH SAFETY PIN. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- IF EXTERNAL CENTERLINE STORE (OR FUEL TANK) IS INSTALLED, IT MUST BE REMOVED OR THE FOUR JACK METHOD OF JACKING MUST BE USED. REFER TO JACKING AIRCRAFT WITH CENTERLINE STORE.
- IF ACCESS DOORS HAVE BEEN REMOVED, INSTALL THE MINIMUM STRUCTURAL ACCESS DOORS REQUIRED FOR JACKING. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- INSTALL THE TWO WING JACK PADS AND ONE CENTER FUSELAGE JACK PAD IN RECESSES PROVIDED. SEE DETAIL A.
- IF ELECTRICAL POWER IS TO BE APPLIED TO THE AIRCRAFT WHILE ON JACKS, PULL THE FOLLOWING CIRCUIT BREAKERS.

1. AOA PROBE HEATER CONTROL (F-4) NO. 3 C.B. PANEL
2. PROBE HEATER POWER (F-4) NO. 3 C.B. PANEL
3. BELLMOUTH PITOT HEATER (F-4) NO. 3 C.B. PANEL
4. BELLMOUTH PITOT HEATER (RF-4C) NO. 2 C.B. PANEL
5. ANGLE OF ATTACK 5-MTR CASE HEATER (RF-4C) NO. 2 C.B. PANEL

JACKING PROCEDURE

CAUTION

MAXIMUM JACKING WEIGHT IS 54,700 POUNDS. ENTIRE AIRCRAFT CAN BE JACKED WITH ANY COMBINATION OF ARMAMENT, EXTERNAL FUEL TANKS AND INTERNAL FUEL WITHIN THIS WEIGHT LIMIT.

CAUTION

IN WINDS IN EXCESS OF 40 KNOTS AIRCRAFT SHOULD BE REMOVED FROM JACKS OR ADEQUATE TIE-DOWN PROVIDED.

- POSITION THREE 20 TON JACKS BENEATH THE AIRCRAFT JACK POINTS.
- RAISE JACK RAMS UNTIL FIRM AGAINST JACK PADS AND CONTINUE TO RAISE ALL THREE JACKS EVENLY TO MAINTAIN AIRCRAFT LEVEL ATTITUDE.
- KEEP JACK RAM LOCKNUT NEAR LOCKED POSITION WHILE JACKING.
- RAISE AIRCRAFT TO DESIRED HEIGHT. LEVEL THE AIRCRAFT AND TIGHTEN JACK RAM LOCKNUTS.

NOTE

REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION, FOR REMOVAL AND INSTALLATION OF ACCESS DOORS WHILE AIRCRAFT IS ON JACKS.

CAUTION

GROSS WEIGHT OVER 40,000 LBS. REQUIRES THAT ENGINE DROP OUT LINKS AND FRONT (L & R) INBOARD SPAR DOORS MUST REMAIN INSTALLED.

LOWERING PROCEDURE

- INSTALL ACCESS DOORS AND LANDING GEAR SAFETY DEVICES. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- CLEAR AREA BENEATH AIRCRAFT AND LOOSEN JACK RAM LOCKNUTS.
- OPEN EACH JACK RELEASE VALVE AND LOWER AIRCRAFT EVENLY AND SLOWLY. KEEP JACK RAM LOCKNUTS NEAR THE LOCKED POSITION IN CASE OF JACK FAILURE.
- REMOVE JACKS. REMOVE JACK PADS FROM AIRCRAFT.
- RE-SET ALL CIRCUIT BREAKERS PULLED FOR JACKING IF APPLICABLE.

QUALITY ASSURANCE SUMMARY

- AREA CLOSE AROUND AIRCRAFT.
- CIRCUIT BREAKERS RESET (IF APPLICABLE).

JACKING AIRCRAFT WITH CENTERLINE STORE

JACKING THE ENTIRE AIRCRAFT FOR BOREIGHTING GUNS IN POD OR WITH OTHER CENTERLINE STORES ABOARD, CAN BE ACCOMPLISHED BY THE USE OF AN ADAPTER BAR AND TWO TRIPOD JACKS FOR THE FUSELAGE.

SPECIAL TOOLS AND EQUIPMENT

MAIN LANDING GEAR ACTUATOR SAFETY STRUT (2 REQ'D)	53E020000-1
MAIN LANDING GEAR DOOR LOCK PIN (REQ'D)	53E050001-1
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4C, F-4D AND RF-4C)	MDE3238-305
NOSE LANDING GEAR ACTUATOR SAFETY STRUT (F-4E)	53E320051-1
NOSE LANDING GEAR DOOR UP LATCH SAFETY PIN	MDE2147-1
20 TON TRIPOD JACK (4 REQ'D)	TYPE MMU-59E/B-28
ADAPTER BAR (3 REQ'D)	53E010004-1
ADAPTER BAR	53E010005-1
WING JURY STRUTS (2 REQ'D IF WINGS ARE FOLDED)	MDE3207-1

MANPOWER REQUIREMENTS

FIVE MEN REQUIRED. ONE MAN AT EACH JACK AND ONE MAN TO DIRECT JACKING OPERATIONS.

AIRCRAFT PREPARATION

- INSTALL LANDING GEAR ACTUATOR SAFETY STRUTS, MAIN LANDING GEAR INBOARD DOOR LOCK PIN AND NOSE LANDING GEAR DOOR UP LATCH SAFETY PIN. REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- INSTALL JACK PAD ASSEMBLIES (SEE DETAIL A).
- REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION, FOR MINIMUM STRUCTURAL ACCESS DOOR REQUIREMENTS FOR JACKING AND LOWERING AIRCRAFT.
- IF ELECTRICAL POWER IS TO BE APPLIED TO THE AIRCRAFT WHILE ON JACKS, PULL THE FOLLOWING CIRCUIT BREAKERS.

- AOA PROBE HEATER CONTROL (F-4) NO. 3 C.B., PANEL.
- PROBE HEATER POWER (F-4) NO. 3 C.B., PANEL.
- BELLMOUTH PITOT HEATER (F-4) NO. 3 C.B., PANEL.
- BELLMOUTH PITOT HEATER (RF-4C) NO. 2 C.B., PANEL.
- ANGLE OF ATTACK X-MTR CASE HEATER (RF-4C) NO. 2 C.B., PANEL.

JACKING PROCEDURE

CAUTION

MAXIMUM JACKING WEIGHT IS 54,700 POUNDS. THE AIRCRAFT CAN BE JACKED WITH ANY COMBINATION OF ARMAMENT AND EXTERNAL FUEL TANKS WITHIN THIS WEIGHT LIMIT.

CAUTION

IN WINDS IN EXCESS OF 40 KNOTS THE AIRCRAFT SHOULD BE REMOVED FROM JACKS OR ADEQUATE TIE-DOWN PROVIDED.

- EXTEND THE JACK RAM ON TWO 20 TON JACKS APPROXIMATELY TEN INCHES.
- LOWER ADAPTER BAR ON TO THE TWO JACKS SO THAT JACK RAM ENDS FIT INTO ADAPTER.
- ROLL JACKS WITH ADAPTER BAR INTO POSITION UNDER FUSELAGE SO THAT SPHERICAL CENTER OF ADAPTER IS BENEATH FUSELAGE JACK POINT AND CENTER FUEL TANK OR GUN POD IS BETWEEN JACKS.
- RAISE JACKS WITH ADAPTER BAR EVENLY SO THAT ADAPTER IS IN LEVEL CONDITION AND CENTER OF ADAPTER BAR ENGAGES THE JACK PAD FIRMLY.
- INSTALL WING JACKS AND RAISE JACK RAM UNTIL SNUG AGAINST JACK PADS.

CAUTION

OPERATION DIRECTOR MUST OBSERVE ADAPTER BAR DURING RAISING AND LOWERING TO PREVENT ENDS OF ADAPTER BAR FROM DAMAGING UNDERSIDE OF AIRCRAFT DUE TO UNEVEN JACKING.

- RAISE ALL FOUR JACKS EVENLY KEEPING EACH JACK RAM LOCKNUT NEAR LOCKED POSITION.
- RAISE AIRCRAFT TO DESIRED HEIGHT. IF AIRCRAFT IS NOT TO BE BORE-SIGHTED, LEVEL AIRCRAFT. REFER TO "LEVELING AIRCRAFT" IN THIS SECTION. TIGHTEN JACK RAM LOCKNUTS.
- IF AIRCRAFT IS TO BE BORE-SIGHTED, NOSE UP ANGLE FOR BORE-SIGHTING CAN BE OBTAINED AFTER AIRCRAFT IS UP ON ALL FOUR JACKS. TIGHTEN JACK RAM LOCKNUTS. REFER TO T.O. 1F-4C-2-18, ARMAMENT SYSTEMS.

NOTE

THE LANDING GEAR MAY BE RETRACTED OR CYCLED WHILE AIRCRAFT IS JACKED ON CENTERLINE ADAPTER (53E010005-1) IF NORMAL PRECAUTIONS ARE OBSERVED.

CAUTION

STRUCTURAL ACCESS DOORS CAN BE REMOVED WHILE THE AIRCRAFT IS AT REST ON JACKS. IF WEIGHT IS OVER 40,000 LBS., THE FRONT SPAR INBOARD DOORS (L & R) AND ENGINE COMPARTMENT DROPOUT LINKS MUST REMAIN INSTALLED.

LOWERING PROCEDURE

- CLEAR ALL OBSTRUCTIONS BENEATH AIRCRAFT AND INSTALL STRUCTURAL ACCESS DOORS (IF REMOVED). REFER TO T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION.
- SLOWLY LOWER AIRCRAFT BY ALL FOUR JACKS. ADAPTER BAR MUST BE HELD LEVEL BY THE TWO CENTER JACKS. RATE OF LOWERING MUST BE CONTROLLED BY OPERATION DIRECTION. KEEP JACK RAM LOCKNUTS NEAR THE LOCKED POSITION. REMOVE CENTER JACKS WITH ADAPTER BAR, WING JACKS AND JACK PAD ASSEMBLIES.
- RESET CIRCUIT BREAKERS IF APPLICABLE.

QUALITY ASSURANCE SUMMARY

- JACK PAD ASSEMBLY REMOVED.
- CIRCUIT BREAKERS SET IF APPLICABLE.

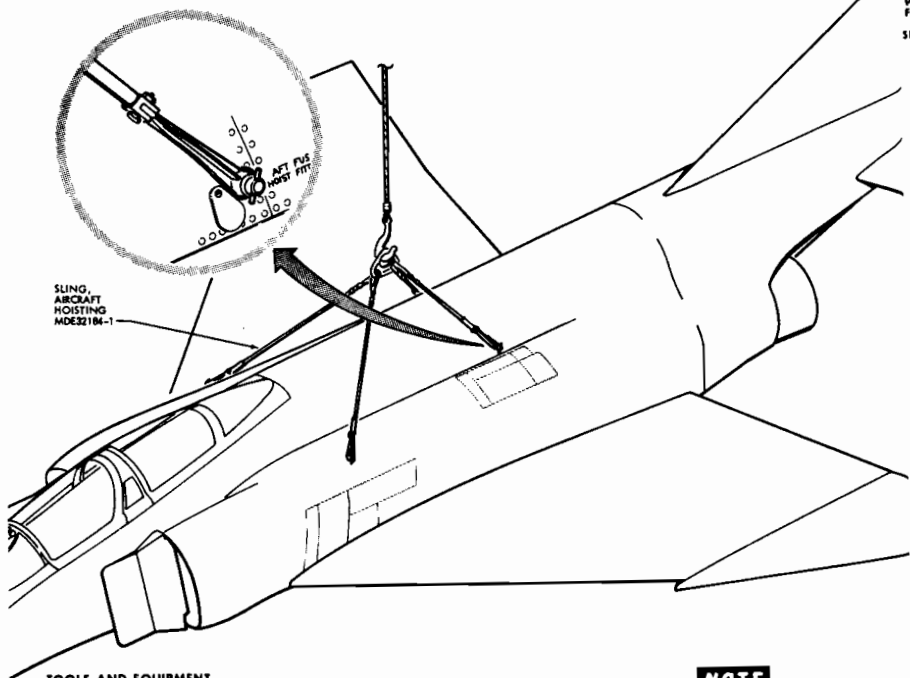
HOISTING

NOTES

1. MAXIMUM AIRCRAFT WEIGHT FOR HOISTING IS 42,000 LBS.
2. THE AIRCRAFT C.G. MUST BE BETWEEN FS 311 AND FS 330 WHEN HOISTING.
3. THE AIRCRAFT CAN BE HOISTED WITH FUEL AND/OR EXTERNAL STORES ABOARD PROVIDING TOTAL WEIGHT AND C.G. ARE WITHIN LIMITS SPECIFIED.

CAUTION

THE LINE OF ACTION OF THE LIFTING CRANE ON THE HOISTING RING MUST FALL WITHIN THE PYRAMID OUTLINED BY FOUR CABLES OF THE HOISTING SLING.



TOOLS AND EQUIPMENT
HOISTING SLING MDE32104-1
MANPOWER REQUIREMENTS
THREE MEN REQUIRED
HOISTING PROCEDURE

CAUTION

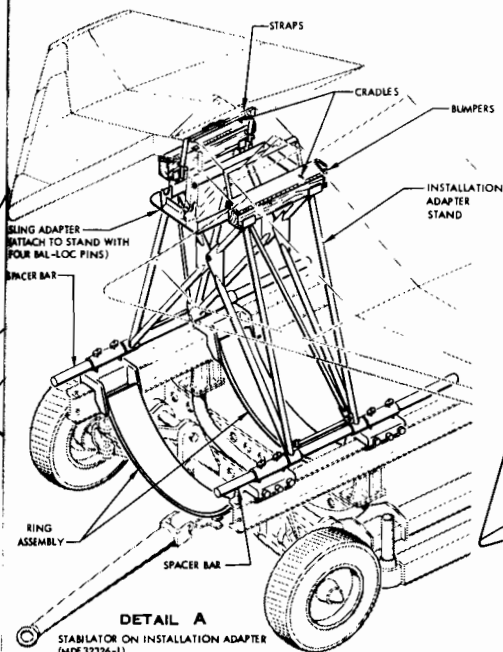
DETERMINE THAT THE MINIMUM STRUCTURAL ACCESS DOOR REQUIREMENTS SPECIFIED IN T.O. 1F-4C-2-25, AIRCRAFT FAMILIARIZATION, ARE MET OR STRUCTURAL DAMAGE TO THE AIRCRAFT MAY RESULT.

- A. PLACE LANDING GEAR CONTROL HANDLE IN DOWN POSITION.
- B. REMOVE FORWARD AND AFT FUSELAGE HOISTING FITTING COVERS.

NOTE

INSPECT AIRCRAFT HOIST FITTING, BOTH BEFORE AND AFTER THE HOISTING OPERATION FOR CRACKS, DISTORTION, AND BOLT HOLE ELONGATION.

- C. ATTACH EACH OF THE CABLES OF THE SLING TO THE AIRCRAFT WITH THE LONGER CABLES AT THE FORWARD HOIST POINTS, TIGHTEN THREADED HANDLE ASSEMBLIES INTO AIRCRAFT HOIST FITTINGS.
- D. ATTACH AT LEAST 3 GUY LINES FROM THE AIRCRAFT TIE DOWN FITTINGS TO THE CRANE TO STEADY THE AIRCRAFT.
- E. TAKE UP THE SLACK IN THE HOISTING CABLES, THEN HOIST AND/OR LOWER THE AIRCRAFT SMOOTHLY TO AVOID EXCESSIVE LOAD FACTOR.



STABILATOR HOISTING

SPECIAL TOOLS AND TEST EQUIPMENT

STABILATOR INSTALLATION ADAPTER	MDE 32326-1
STABILATOR HOISTING SLING	MDE 3277-1
EXT. STORES HANDLING ADAPTER	
RING ASS'Y	MDE 32198-1
EXT. STORES HANDLING SPACER BAR	
BAR	MDE 3288-13
AIR LOGISTICS TRAILER	4000A

MAN POWER REQUIREMENTS

THREE MEN ARE REQUIRED.

HOISTING PROCEDURE

- A** INSTALL RING ASSEMBLIES ON THE AIR LOGISTICS TRAILER. INSTALL STABILATOR INSTALLATION ADAPTER MDE 32326-1 AND SPACER BARS TO RING ASSEMBLIES SHOWN IN DETAIL A.

NOTE

FOR STABILATOR REMOVAL AND INSTALLATION, AND RELATED PROCEDURES, REFER TO T.O. 1F-MC-2-4, FLIGHT CONTROL SYSTEMS.

- B** REMOVE SLING ADAPTER (ATTACHED BETWEEN CRADLES WITH FOUR BAL-LOC PINS).

- C** POSITION AND ADJUST TRAILER TO SUPPORT WEIGHT OF STABILATOR ON PADDED CRADLES AND BUMPERS. SECURE STABILATOR TO CRADLES WITH STRAPS.

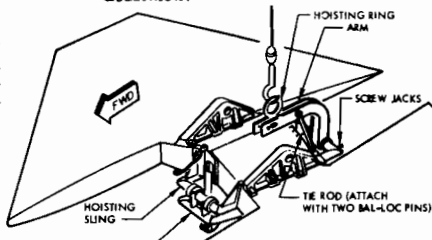
- D** MOVE TRAILER TO CLEAR AIRCRAFT AREA AND REINSTALL SLING ADAPTER REMOVED IN STEP B.

- E** UNSCREW SCREW JACKS TO SPREAD CLAMP ON STABILATOR. HOIST SLING MDE 3277-1. MOUNT THE HOISTING SLING TO THE UNDERSIDE OF THE STABILATOR WITH THE FORWARD CROSS MEMBER RESTING IN YOKES OF THE SLING ADAPTER AS SHOWN IN DETAIL B. TIGHTEN SCREW JACKS TO CLAMP SLING TO CENTER SECTION OF STABILATOR.

- F** TO HOIST STABILATOR IN HORIZONTAL POSITION, INSTALL BAL-LOC PIN IN AFT HOLE WITH HOISTING RING IN VERTICAL POSITION AS SHOWN IN DETAIL B. UNFASTEN STRAPS TO FREE STABILATOR FROM ADAPTER.

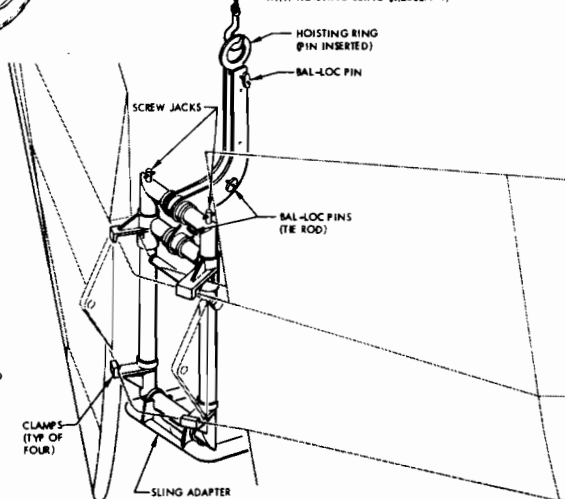
- G** TO HOIST STABILATOR IN VERTICAL POSITION, INSTALL BAL-LOC PIN IN FWD HOLE SO HOISTING RING CAN ROTATE IN ARM. REMOVE TIE-ROD, ROTATE ARM TO POSITION SHOWN IN DETAIL C AND REINSTALL TIE-ROD. UNFASTEN STRAPS TO FREE STABILATOR FROM ADAPTER. HOIST SLOWLY PERMITTING FORWARD CROSS MEMBER TO ROTATE IN YOKES OF THE SLING ADAPTER UNTIL VERTICAL POSITION IS ATTAINED.

- H** TO PLACE STABILATOR ON INSTALLATION ADAPTER PRIOR TO INSTALLATION ON THE AIRCRAFT, REVERSE THE APPLICABLE PROCEDURES ABOVE.



DETAIL B

HOISTING STABILATOR IN HORIZONTAL POSITION WITH HOISTING SLING (MDE 3277-1)



DETAIL C

HOISTING STABILATOR IN VERTICAL POSITION WITH HOISTING SLING (MDE 3277-1)

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1-2

OUTER WING HOISTING

SPECIAL TOOLS AND TEST EQUIPMENT

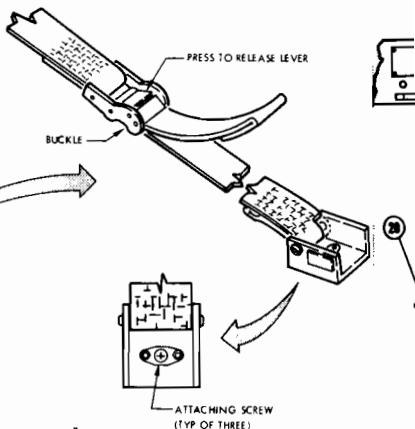
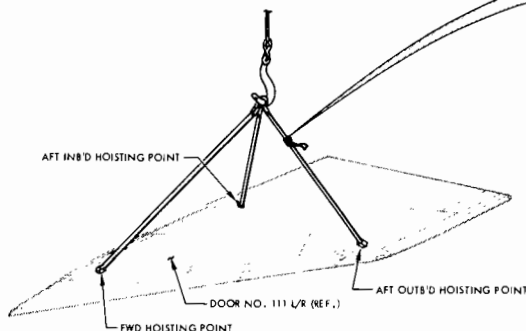
SLING, OUTER WING HOIST MDE3278-1

MAN POWER REQUIREMENTS

TWO MEN ARE REQUIRED.

HOISTING PROCEDURE

- A** REMOVE SCREWS FROM THE THREE DESIGNATED OUTER WING HOIST FITTING POINTS ON THE OUTER WING PANEL.



NOTE

SCREWS SHOULD BE CAREFULLY TAGGED AS REMOVED TO ASSURE REINSTALLATION IN CORRECT LOCATION.

- B** REMOVE CAPS FROM SLING HOIST FITTINGS AND ATTACH THE SLING TO THE WING PANEL ATTACH POINTS PROVIDED BY STEP A. ADJUSTABLE LEG OF THE SLING MUST BE ATTACHED AT THE AFT OUTBOARD HOISTING POINT.
- C** ADJUST OUTBOARD LEG OF SLING TO TAKE UP SLACK, OR TO SUPPORT THE WING PANEL IN ANY POSITION FROM HORIZONTAL TO 40° UP AT THE TIP, AS REQUIRED TO FACILITATE MAINTENANCE OPERATION.
- D** AFTER REMOVAL OF SLING, REINSTALL AND TORQUE STRUCTURAL SCREWS REMOVED IN STEP A. (QUALITY ASSURANCE). REPLACE CAPS ON SCREWS OF SLING HOIST FITTINGS TO PROTECT THREADS.

SEAT HOISTING

SPECIAL TOOLS AND TEST EQUIPMENT

HOISTING BAR, EJECTION SEAT MDE25092-1
HANDWHEEL MBEL25568
SEAT CRADLE 105GT1040

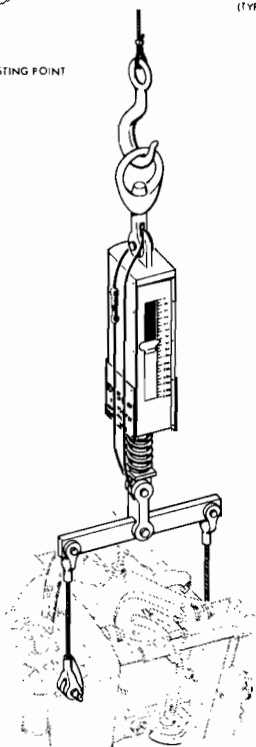
MAN POWER REQUIREMENTS

THREE MEN ARE REQUIRED.

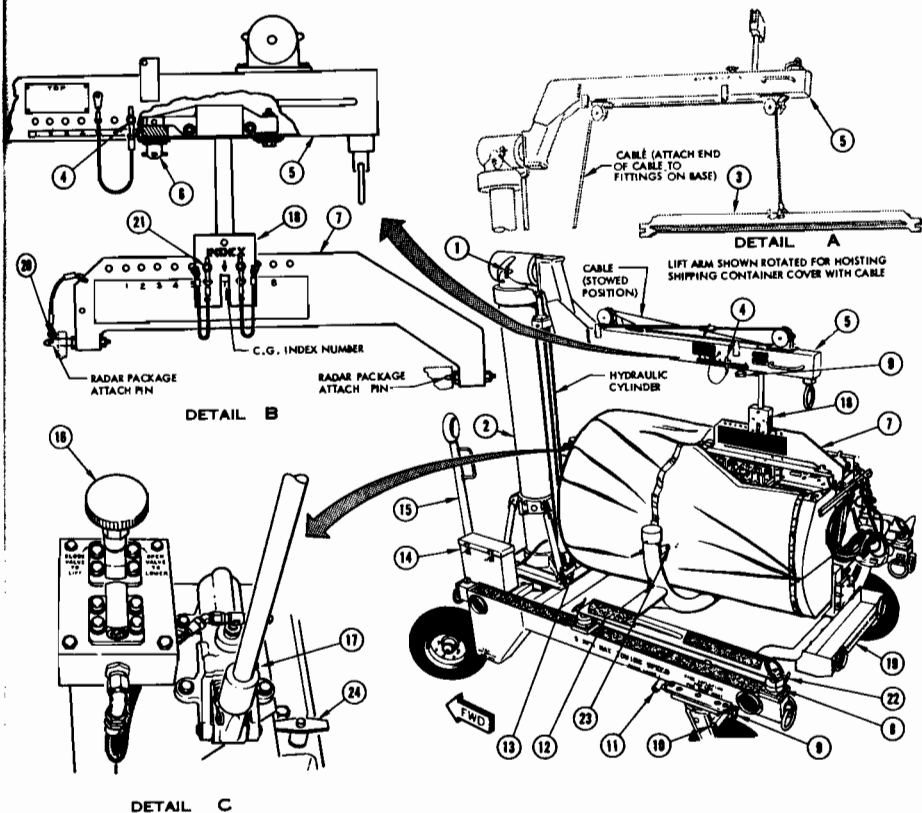
HOISTING PROCEDURE

WARNING

THE SEAT MUST BE DISARMED PRIOR TO REMOVAL, OR FIRING OF THE SEAT MAY OCCUR. FOR REMOVAL PROCEDURE, REFER TO "EJECTION SEAT REPLACEMENT AND ADJUSTMENT", T.O. 1F-4C-2-3, SEAT AND CANOPY SYSTEMS.



2M153-12779
2-2



- | | |
|---|---|
| 1. BAL-LOC PIN (LIFT ARM POSITIONING) | 13. CABLE ATTACH FITTING |
| 2. EXTENSION TUBE | 14. TOOL BOX |
| 3. SHIPPING CONTAINER COVER ADAPTER | 15. TOW BAR |
| 4. BAL-LOC PIN (LIFT ARM RAIL FWD LIMIT) | 16. HYDRAULIC CONTROL VALVE |
| 5. LIFT ARM | 17. HYDRAULIC HAND PUMP |
| 6. HAND KNOB-LIFT ARM RAIL FWD LIMIT | 18. ADAPTER ATTACHMENT BLOCK |
| 7. ADAPTER-RADAR PACKAGE | 19. WIRE HARNESS STORAGE PAN |
| 8. CRADLE SHOCK MOUNTS (TYP OF FOUR) | 20. LOCK PIN (RADAR PACKAGE SECURING) |
| 9. REAR WHEEL CASTER LOCK (L AND R) | 21. BAL-LOC PINS-ADAPTER ATTACHMENT (2) |
| 10. CASTER POSITIONING LEVER SOCKET (L AND R) | 22. BAL-LOC PINS-CRADLE (4) |
| 11. REAR WHEEL BRAKE (L AND R) | 23. BAL-LOC PINS-ANTENNA CROSS ARM (2) |
| 12. CRADLE ASSEMBLY | 24. BAL-LOC PIN-LIFT ARM SWIVEL LOCK |

FCS RADAR HANDLING PACKAGE 53E260023-1 (F-4C/D)

PURPOSE THE RADAR HANDLING DOLLY IS USED TO REMOVE OR INSTALL THE NOSE RADAR PACKAGE IN THE AIRCRAFT, THE SHIPPING CONTAINER AND THE TEST BENCH, AND TRANSPORTATION OF THE PACKAGE.

INSTALLATION

NOTE

THE RADAR HANDLING DOLLY SHOULD BE USED FOR BOTH INSTALLATION AND REMOVAL OF THE RADAR PACKAGE WHETHER INSTALLED ON THE AIRCRAFT, ON THE TEST BENCH, OR IN THE SHIPPING CONTAINER. PROCEDURE WHICH FOLLOWS FOR REMOVAL OF THE RADAR PACKAGE FROM THE AIRCRAFT IS TYPICAL FOR ALL HANDLING AND HOISTING OPERATIONS. CONFIGURATION OF THE DOLLY TO HANDLE THE SHIPPING CONTAINER COVER (LID) IS SHOWN IN DETAIL A.

A. DISCONNECT ALL ELECTRICAL AND UTILITY HYDRAULIC POWER FROM THE AIRCRAFT, AND LOCK THE RADOME IN THE OPEN POSITION. DISCONNECT AND COVER HYDRAULIC LINES FROM THE RADAR PACKAGE. DISCONNECT ELECTRICAL WIRING. FULLY EXTEND THE PACKAGE ON THE SUPPORT RAIL.

NOTE

FOR PREPARATION OF THE RADAR PACKAGE FOR REMOVAL FROM THE AIRCRAFT, REFER TO T.O. 1F-4C-2-20, FIRE CONTROL SYSTEM (F-4C); OR T.O. 1F-4D-2-19, FIRE CONTROL SYSTEM (F-4D); OR T.O. 1F-4E-2-19, FIRE CONTROL SYSTEM (F-4E).

B. MOVE THE DOLLY INTO POSITION IN FRONT OF THE RADAR PACKAGE AND REMOVE THE RADAR PACKAGE ADAPTER FROM ITS STOWED POSITION ON THE RIGHT SIDE OF THE CRADLE ASSEMBLY. ATTACH THE ADAPTER TO THE RADAR PACKAGE BY INSERTING THE PINS ON THE ADAPTER IN THE HOLES PROVIDED ON THE TOP OF THE RADAR PACKAGE (DETAIL B). INSTALL LOCK PIN (20) IN FORWARD ATTACHING TO SECURE THE ADAPTER TO THE RADAR PACKAGE.

C. CLOSE THE HYDRAULIC CONTROL VALVE AND ACTUATE THE HAND PUMP (DETAIL C) TO ELEVATE THE LEFT ARM SUFFICIENTLY FOR THE ADAPTER ATTACHMENT BLOCK TO ALIGN WITH THE ADAPTER. BAL-LOC PIN (24) IN THE BASE OF THE EXTENSION TUBE CAN BE REMOVED TO ALLOW THE LEFT ARM TO SWING APPROXIMATELY 5° EITHER RIGHT OR LEFT OF CENTER POSITION. SWIVEL THE REAR CASTERS TO THE AFT POSITION AND LOCK.

D. MOVE THE DOLLY AFT AND LOWER LEFT ARM AS NECESSARY TO ALIGN HOLES IN ADAPTER ATTACHMENT BLOCK WITH THE INDEX NUMBERED HOLES IN THE ADAPTER. LOOSEN THE HAND KNOB FOR THE LEFT ARM RAIL LOCK AND POSITION INDEX POINTER ON ADAPTER ATTACHMENT BLOCK TO THE CORRECT CENTER OF GRAVITY INDEX HOLE. REFER TO APPLICABLE FIRE CONTROL SYSTEM MANUAL FOR CORRECT CENTER OF GRAVITY OF THE RADAR PACKAGE.

NOTE

TO DETERMINE CORRECT CENTER OF GRAVITY SETTING FOR RADAR PACKAGE WHICH HAS COMPONENTS REMOVED, REFER TO T.O. 1F-4C-2-20, FIRE CONTROL SYSTEM (F-4C); OR T.O. 1F-4D-2-19, FIRE CONTROL SYSTEM (F-4D); OR T.O. 1F-4E-2-19, FIRE CONTROL SYSTEM (F-4E). SELECT INDEXED HOLE NUMBER CORRESPONDING TO APPLICABLE PACKAGE CONFIGURATION.

E. INSERT BAL-LOC PINS (21) TO SECURE ADAPTER ATTACHMENT BLOCK TO THE ADAPTER. TIGHTEN THE HAND KNOB FOR THE LEFT ARM RAIL LOCK. MOVE BAL-LOC PIN (4) TO THE NUMBERED HOLE CORRESPONDING TO THE HOLE NUMBER ON THE ADAPTER.

F. APPLY LEFT AND RIGHT REAR WHEEL BRAKES. ELEVATE THE LEFT ARM UNTIL THE WEIGHT OF THE RADAR PACKAGE IS CARRIED BY THE DOLLY.

CAUTION

DO NOT UNLATCH THE LATCHES ON THE RADAR SUPPORT RAIL PRIOR TO MAKING CERTAIN THAT THE RADAR PACKAGE IS FULLY SUPPORTED BY THE DOLLY.

G. REMOVE THE COTTER PINS AND UNLATCH THE RADAR PACKAGE FROM THE SUPPORT RAILS (4 PLACES). LOWER THE LEFT ARM SLIGHTLY TO CLEAR THE RAIL, THEN SHOVE THE RAIL BACK TO ITS STOWED POSITION. RELEASE THE BRAKES ON THE DOLLY AND MOVE FORWARD TO CLEAR THE AIRCRAFT. REPLACE BAL-LOC PIN (24) IN THE BASE.

H. LOWER THE RADAR PACKAGE SLOWLY, ALIGNING IT WITH THE CRADLE. ALIGN ANTENNA CROSS ARM BETWEEN LOCATING PLATES ON THE FORWARD END OF THE CRADLE AND INSERT BAL-LOC PIN (23). STOW ATTACHED WIRING HARNESS IN THE PAN PROVIDED ON THE CRADLE.

I. TO INSTALL THE RADAR PACKAGE IN THE SHIPPING CONTAINER, OMIT STEP H. WITH THE RADAR PACKAGE SUPPORTED BY THE LEFT ARM, REMOVE FOUR BAL-LOC PINS (22) AND LIFT THE CRADLE ASSEMBLY OFF THE DOLLY. THIS PERMITS THE DOLLY TO STRADDLE THE SHIPPING CONTAINER, LOWER THE RADAR PACKAGE SLOWLY UNTIL IT CAN BE ALIGNED WITH, AND SUPPORTED BY, THE SUPPORT RAIL IN THE CONTAINER.

CAUTION

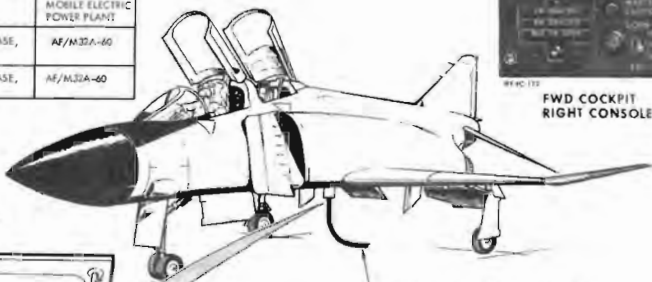
RADAR PACKAGE SHIPPING CONTAINER BASE SHOULD BE WEIGHTED DOWN TO PREVENT POSSIBLE TIP-OVER WHEN THE PACKAGE IS EXTENDED ON THE RAIL.

ELECTRICAL POWER CONNECTION

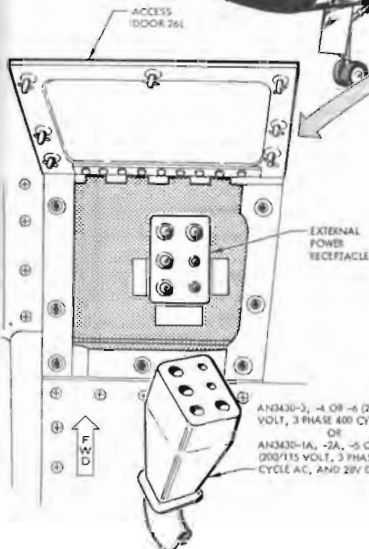
EXTERNAL ELECTRICAL POWER REQUIREMENTS		
AIRCRAFT	AIRCRAFT POWER REQUIREMENTS	MOBILE ELECTRIC POWER PLANT
F-4C, F-4D, F-4E	200/115V AC ± 2% 3 PHASE, 400 ± 4 CPS, 20 KVA	AF/M30A-60
F-16C	200/115V AC ± 2% 3 PHASE, 400 ± 4 CPS, 25.3 KVA	AF/M32A-60



FWD COCKPIT
RIGHT CONSOLE



TO ENGINE DRIVEN GENERATOR SET.
(POSITION SET AT FULL LENGTH OF
CABLE OR AT NO LESS THAN 30
FEET FROM AIRCRAFT RECEPTACLE)



CABLE AND PLUG ASSEMBLY

CAUTION

WHEN USING AN3430-1A, -2A, -3, OR -7 CABLE, MAKE CERTAIN THAT PIN 8 IN THE CABLE IS INSULATED FROM GROUND AND ALL OTHER CIRCUITS.

SPECIAL TOOLS AND TEST EQUIPMENT

6AS TURBINE ENGINE DRIVEN GENERATOR SET AF/M32A-60

CONNECTING POWER UNIT

WARNING

AIRCRAFT WITH EXTERNAL STORES AND/OR ARMAMENT ABOARD MUST BE PARKED IN A DESIGNATED EXPLOSIVE PARKING AREA AND MUST BE SAFTED BEFORE ELECTRICAL POWER IS APPLIED. REFER TO SECTION III FOR APPLICABLE SAFETY PINS WHICH MUST BE INSTALLED. FOR ADDITIONAL SAFETY REQUIREMENTS, REFER TO T.O. 11-4C-2-18, ARMAMENT SYSTEMS.

- OPEN ACCESS DOOR 26L.
- WITH POWER UNIT OUTPUT SWITCHES OFF, ALIGN CABLE PLUG WITH AIRCRAFT RECEPTACLE AND PUSH UP UNTIL FULLY SEATED.
- START POWER UNIT AND WAIT UNTIL FREQUENCY AND OUTPUT VOLTAGE ARE STABLE.

CAUTION

TO PREVENT DAMAGE TO THE AIRCRAFT ELECTRICAL SYSTEM, THE OUTPUT OF THE POWER UNIT MUST BE AS FOLLOWS:

- AC VOLTAGE: 115 ± 2.5 VOLTS.
- AC FREQUENCY: 400 ± 4 CYCLES.

APPLYING POWER

- CHECK TO MAKE CERTAIN THAT SWITCHES AND CONTROLS IN "GROUND CHECKLIST" AND CIRCUIT BREAKERS IN "CIRCUIT BREAKER CHECKLIST" ARE POSITIONED AS SPECIFIED.

WARNING

DO NOT APPLY HYDRAULIC POWER TO THE UTILITY HYDRAULIC SYSTEM PRIOR TO APPLICATION OF ELECTRICAL POWER.

- POSITION THE POWER UNIT OUTPUT SWITCHES TO ON.

- POSITION AIRCRAFT GENERATOR CONTROL SWITCHES (B & R) TO EXT.

- DETERMINE IF INSTRUMENT BUS POWER AND/OR RECON BUS POWER ARE REQUIRED. REFER TO APPLICABLE SYSTEM MANUALS. IF REQUIRED, SEE "GROUND POWER SWITCHES" TO DETERMINE PROPER POSITION OF SWITCHES.

CAUTION

DO NOT TURN WHITE FLOOD LIGHT SWITCHES ON WHEN THE AIRCRAFT BATTERY IS REMOVED OR DISCONNECTED. DAMAGE TO THE BATTERY RELAY MAY RESULT.

REMOVING POWER

CAUTION

IF THE "INST BUS GND PWR SWITCH" HAS BEEN ENGAGED FOR GROUND MAINTENANCE, THE SWITCH MUST BE RETURNED TO ITS NORMAL POSITION PRIOR TO PLACING THE GENERATOR CONTROL SWITCHES TO OFF. DUE TO HOLDING CIRCUITS, THE SWITCH WILL NOT AUTOMATICALLY DROP OUT WHEN THE GENERATOR CONTROL SWITCHES ARE PLACED TO OFF. IF THE EXTERNAL POWER SOURCE REMAINS ENERGIZED, THE INSTRUMENT BUS REMAINS ENERGIZED.

CAUTION

THE "ENGINE MASTER" SWITCHES AND THE "GROUND FUELING" SWITCH MUST BE IN THE OFF POSITION BEFORE REMOVING EXTERNAL POWER. THIS WILL PREVENT THE BATTERY FROM POWERING THE ESSENTIAL BUS AND DEPLETING ITS CHARGE.

- POSITION THE GENERATOR CONTROL SWITCHES TO OFF.

DISCONNECTING POWER UNIT

- TURN APPLICABLE POWER UNIT OUTPUT SWITCHES OFF AND DISCONNECT CABLE AND PLUG ASSEMBLY FROM AIRCRAFT RECEPTACLE.
- CLOSE AND SECURE ACCESS DOOR 26L.

25M303-1000RL
1-5

ELECTRICAL POWER CONNECTION (CONT)

GROUND CHECK LIST (PRIOR TO APPLYING EXTERNAL ELECTRICAL POWER)

FORWARD COCKPIT

CONTROLS	LOCATION	POSITION
WHITE FLOOD SWITCH	COCKPIT LIGHTS CONTROL PANEL-RIGHT CONSOLE	OFF
INSTA PANEL CONTROL	COCKPIT LIGHTS CONTROL PANEL-RIGHT CONSOLE	ROTATE CLOCK-WISE FROM OFF
WING STA SWITCH	FUEL SYSTEM CONTROL PANEL-LEFT CONSOLE	NORM (GUARD CLOSED)
INT WING DUMP SWITCH	FUEL SYSTEM CONTROL PANEL-LEFT CONSOLE	NORMAL
AIR REFUEL SWITCH	FUEL SYSTEM CONTROL PANEL-LEFT CONSOLE	AGREE WITH RECEIPTACLE POSITION
FLAPS SWITCH	IMMEDIATELY ABOVE ENGINE CONTROL PANEL (OUTBOARD)-LEFT CONSOLE	AGREE WITH FLAPS POSITION
ENGINE THROTTLES	ENGINE CONTROL PANEL-LEFT CONSOLE	OFF
ENGINE MASTER SWITCHES (LEFT & RIGHT)	ENGINE CONTROL PANEL-LEFT CONSOLE	OFF
GROUND FUELING SWITCH	RIGHT WHEEL WELL SWITCH PANEL	OFF
LANDING GEAR CONTROL HANDLE	LEFT SIDE OF MAIN INSTRUMENT PANEL	DOWN
ARM-SAFE SWITCH (F-4C, F-4D & F-4E)	MISSILE CONTROL PANEL-MAIN INSTRUMENT PANEL	SAFE
PUSH TO JETT SWITCH (F-4C, F-4D & F-4E)	MISSILE STATUS PANEL-MAIN INSTRUMENT PANEL	OFF
MASTER ARM-SAFE SWITCH (F-4D)	STATION AND WEAPON SELECT PANEL-PEDESTAL PANEL	SAFE
ARRESTING GEAR CONTROL HANDLE	RIGHT SIDE OF MAIN INSTRUMENT PANEL	AGREE WITH HOOK POSITION
L. GEN AND R. GEN SWITCHES	GENERATOR CONTROL SWITCH PANEL-RIGHT CONSOLE	OFF
PITOT HEAT SWITCH	RIGHT UTILITY PANEL-RIGHT CONSOLE	OFF
SPEED BRAKE SWITCH	INBOARD SIDE OF RIGHT THROTTLE LEVER	AGREE WITH SPEED BRAKE POSITION 2
PUSH TO TEST-ON-INC CONTROL (F-4C & F-4D)	HEIGHT INDICATOR (D-1090/APN-155) (RADAR ALTITUDE INDICATOR) LOCATED ON LEFT SIDE OF MAIN INSTRUMENT PANEL	FULLY COUNTERCLOCK-WISE OFF SHOULD APPEAR IN THE FLAG WINDOW ON THE FACE OF THE INSTRUMENT. 3
SELECTIVE MISSILE JETTISON SWITCH	MISSILE STATUS PANEL	OFF
WPN SEL SWITCH (F-4C)	PEDESTAL PANEL	BOMBS SINGLE
WPN SEL SWITCH (F-4B/E)	PEDESTAL PANEL	AGM-12
STA SEL SWITCH (F-4C)	PEDESTAL PANEL	OFF
STA SEL SWITCH (F-4D)	PEDESTAL PANEL	OUT
MA SWITCH (F-4C)	PEDESTAL PANEL	OFF
MASTER SWITCH (F-4D)	PEDESTAL PANEL	OFF
BOMB CONTROL SWITCH (F-4C)	BOMB CONTROL PANEL	OFF
LAB/WPN REL SWITCH (F-4D)	WEAPONS CONTROL PANEL	OFF
GUNS AND STORES SWITCH (F-4D)	PEDESTAL PANEL	NORMAL
BOMB ARM SWITCH	PEDESTAL PANEL	SAFE
EXT. STORES SEL (F-4C/D/E) BUTTON	SUB PANEL	SAFE 4B
EXT. TANKS EMER. REL BUTTON (F-4C)	SUB PANEL	SAFE 4B

ELECTRICAL POWER CONNECTION (CONT)

GROUND CHECK LIST (PRIOR TO APPLYING EXTERNAL ELECTRICAL POWER)		
AFT COCKPIT		
CONTROLS	LOCATION	POSITION
WHITE FLOODS SWITCH	COCKPIT LIGHTS CONTROL PANEL-RIGHT CONSOLE	OFF
INSTR PANEL CONTROL (RF-4C)	COCKPIT LIGHTS CONTROL PANEL-RIGHT CONSOLE	ROTATE CLOCK - WISE FROM OFF
F.C.S. RADAR POWER SWITCHES (F-4C, F-4D & F-4E)	RADAR SET CONTROL PANEL-LEFT CONSOLE	OFF ④
SPEED BRAKE SWITCH.	INBOARD SIDE OF RIGHT THROTTLE LEVER	AGREE WITH SPEED BRAKE POSITION ②
MODE SWITCH (FLR) (RF-4C)	FORWARD LOOKING RADAR AFT INDICATOR	TURN TO OFF ④
MODE SELECT SWITCH (RF-4C)	HEIGHT INDICATOR-MAIN INSTRUMENT PANEL (RADAR ALTIMETER)	OFF (OFF SHOULD APPEAR IN THE MODE INDICATOR WINDOW) ④
NUCL STORE CONSENT SWITCH	NUCL STORE CONSENT SWITCH PANEL	SAFE
OFF-STBY-TEST SWITCH (RF-4C)	RADAR MAPPING SENSOR CONTROL PANEL-RIGHT CONSOLE TURN TO OFF	TURN TO OFF ④
MODE SELECT SWITCH (RF-4C)	HF RADIO SET CONTROLS-RIGHT VERTICAL PANEL	TURN TO OFF ④
LEFT MAIN LANDING GEAR WHEEL WELL		
WING FOLD CONTROL SWITCH (F-4C, F-4D & RF-4C)	WHEEL WELL SWITCH PANEL	AGREE WITH WING POSITION
RIGHT MAIN LANDING GEAR WHEEL WELL		
GROUND FUELING SWITCH	WHEEL WELL SWITCH PANEL	OFF

ELECTRICAL POWER CONNECTION (CONT)

CIRCUIT BREAKER CHECKLIST (PRIOR TO APPLYING EXTERNAL ELECTRICAL POWER)

A SET THE FOLLOWING CIRCUIT BREAKERS.

F-4C AND F-4D				
REF DES	NOMENCLATURE	C.B. PANEL	ZONE	BUS ENERGIZED
① 3-CB349	EXT PWR	1	11D	L 14 V AC AND L 28 V AC INST 28 V AC R 28 V AC } R 28 V DC AND ESS 28 V DC } L 28 V DC
4-CB305	LH 28V XMFR	2	5A	
4-CB306	INST 28V AUTO XMFR	2	5B	
4-CB307	RH 28V XMFR	2	3C	
4-CB325	RH XMFR RECT	2	7A	
4-CB326	RH XMFR RECT	2	7B	
4-CB327	RH XMFR RECT	2	5C	
4-CB328	LH XMFR RECT	2	6A	
4-CB329	LH XMFR RECT	2	6B	
4-CB330	LH XMFR RECT	2	4C	
49-CB302	WARNING LT PWR	3	3C	
49-CB303	WARNING LIGHT POWER	3	2C	
	WARNING LT CONTROL			
	WARNING LIGHT POWER			
F-4E				
① 3-CB352	EXT PWR	1	11D	L 14 VAC AND L 28 VAC INST 28 VAC R 28 VAC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC MAIN 28 VDC AND ESS 28 VDC
4-CB305	LH 28V XMFR	2	7A	
4-CB306	INST 28V AUTO XMFR	2	7B	
4-CB307	RH 28V XMFR	2	3C	
4-CB325	RH XMFR RECT	2	6A	
4-CB326	RH XMFR RECT	2	6B	
4-CB327	RH XMFR RECT	2	6C	
4-CB328	LH XMFR RECT	2	5A	
4-CB329	LH XMFR RECT	2	5B	
4-CB330	LH XMFR RECT	2	5C	
49-CB302	WARNING LT PWR	3	3C	
49-CB303	WARNING LT CONT	3	2C	
	WARNING LT CONT			

ELECTRICAL POWER CONNECTION (CONT)

RF-4C				
REF DES	NOMENCLATURE	C.B. PANEL	ZONE	
4-CB306	28 V AC AUTO X-FORMER	2	8K	INST 28 V AC R 28 V AC L 14 V AC AND L 28 V AC R 28 V DC AND ESS 28 V DC L 28 V DC
4-CB307	RH 28 V AC BC X-FORMER	2	7K	
4-CB308	LH 14/28V AC X-FORMER	2	9K	
4-CB313	RH X-FORMER RECT JA	2	1K	
4-CB314	RH X-FORMER RECT JB	2	2K	
4-CB316	RH X-FORMER RECT JC	2	3K	
4-CB320	LH X-FORMER RECT JA	2	4K	
4-CB321	LH X-FORMER RECT JB	2	5K	
4-CB322	LH X-FORMER RECT JC	2	6K	
4-CB347	EXT PWR	1	4D	
49-CB310	WARN LTS	2	1H	
49-CB312	WARN LTS CONT	2	2H	
26-CB337	CAMR WARN & GO	1	5F	

B PULL THE FOLLOWING CIRCUIT BREAKERS AS REQUIRED.

F-4C, F-4D, AND F-4E				
REF DES	NOMENCLATURE	C.B. PANEL	ZONE	PURPOSE
45-CB301	1 AOA PROBE HEATER CONT	3	7C	PULL TO PREVENT ENERGIZING ANGLE OF ATTACK PROBE HEATER IF AIRCRAFT IS ON JACKS. REFER TO T.O. 1F-4C-2-2, GROUND HANDLING, SERVICING, AND AIRFRAME MAINTENANCE.
71-CB316	2 AOA PROBE HTR CONT	3	6C	
	3 AOA PROBE HTR PWR			
29-CB301	CKPT HEAT & VENT	3	6D	PULL TO REDUCE GROUND OPERATION TIME IF EXTENDED USE OF GROUND POWER IS ANTICIPATED.
29-CB302	CKPT HEAT & VENT	3	8C	
42-CB308	EQUIP COOLING	3	6B	
33-CB301	OXYGEN GAGE	3	3D	PULL TO PREVENT DAMAGE TO OXYGEN GAGING SYSTEM IF LOX CONVERTER IS NOT INSTALLED.
18-CB303	LDG GR AND FLAPS POS IND	3	13B	PULL TO PREVENT LANDING GEAR LIGHT FLASHER FROM CYCLING UNNECESSARILY DURING MAINTENANCE.
14CB316	APU	4	A11	PULL TO PREVENT ENERGIZING STABILATOR POWER UNIT AND POSSIBLE CYCLING OF STABILATOR CONTROL SURFACE
14CB317	APU	4	A12	
14CB318	APU	4	A13	
14CB319	APU CONTROL	4	A10	
RF-4C				
45-CB301	ANGLE OF ATTACK HEATER	2	11F	PULL TO PREVENT ENERGIZING ANGLE OF ATTACK PROBE HEATER IF AIRCRAFT IS ON JACKS. REFER TO T.O. 1F-4C-2-2, GROUND HANDLING, SERVICING, AND AIRFRAME MAINTENANCE.
71-CB316	2 ANGLE OF ATK X-MTR CASE HEATER	2	10F	
	3 ANGLE OF ATK CASE HEATER			
89-CB304	1 DATA ANNOT	1	9F	PULL TO REDUCE GROUND OPERATION TIME IF EXTENDED USE OF GROUND POWER IS ANTICIPATED.
89-CB305	DATA ANNOT & INTERVALOMETER			
29-CB301	DATA ANNOT	1	8F	
29-CB302	CKPT HEAT & VENT	2	12E	
	CKPT HEAT & VENT	2	12F	
33-CB301	OXYGEN GAGE	3	14D	PULL TO PREVENT DAMAGE TO OXYGEN GAGING SYSTEM IF LOX CONVERTER IS NOT INSTALLED.
	1 OXY, GAGE			
18-CB302	LDG GR AND FLAPS POS IND	3	10C	PULL TO PREVENT LANDING GEAR LIGHT FLASHER FROM CYCLING UNNECESSARILY DURING MAINTENANCE.
14CB316	APU	4	A11	PULL TO PREVENT ENERGIZING STABILATOR POWER UNIT AND POSSIBLE CYCLING OF STABILATOR CONTROL SURFACE
14CB317	APU	4	A12	
14CB318	APU	4	A13	
14CB319	APU CONTROL	4	A10	

GROUND POWER SWITCHES				
AIRCRAFT	SWITCH		DIRECTION OF HANDLE MOVEMENT	LOCATION
	NOMENCLATURE	POSITIONS		
F-4C	INST GRD PWR SWITCH	NOT IDENTIFIED	UP 12 DOWN	NO. 2 CIRCUIT BREAKER PANEL
RF-4C	INST BUS GRD PWR SWITCH	TEST 10 NORM 10	FORWARD 12 AFT	NO. 2 CIRCUIT BREAKER PANEL
	RECON BUS GRD PWR SWITCH	TEST 10 NORM 10	FORWARD 12 AFT	NO. 2 CIRCUIT BREAKER PANEL
F-4D AND F-4E	INST GRD PWR SWITCH	TEST 11 NORM 11	UP 12 DOWN	NO. 2 CIRCUIT BREAKER PANEL

NOTES

- 1** F-4E.
- 2** WITH POWER APPLIED TO THE UTILITY HYDRAULIC SYSTEM INADVERTANT RETRACTION OF SPEED BRAKES AND CLOSING OF AUXILIARY AIR DOORS CAN BE INITIATED AS THE RESULT OF DISRUPTED CONTINUITY IN THE APPLICABLE ELECTRICAL SYSTEM.
- 3** ALL SOURCES OF DANGEROUS RF EMISSIONS MUST BE TURNED OFF PRIOR TO APPLICATION OF ELECTRICAL POWER.
- 4** F-4C-15 62-12199 THRU F-4C-19 63-7597.
- 5** F-4C-20 63-7598 AND UP, AND F-4D.
- 6** RF-4C-17 63-7740 THRU RF-4C-20 64-1017.
- 7** RF-4C-21 64-1018 AND UP.
- 8** RF-4C-17 63-7740 THRU RF-4C-19, 63-7763 AND RF-4C-22 64-1038 AND UP.
- 9** RF-4C-20 64-997 THRU AND RF-4C-21 64-1037.
- 10** THE SWITCH POSITIONS ARE NOT IDENTIFIED ON RF-4C-17 63-7740 THRU RF-4C-24 65-838.
- 11** THE SWITCH POSITIONS ARE NOT IDENTIFIED ON F-4D-24.
- 12** BUS ENERGIZED FOR GROUND OPERATION.
- 13** F-4E, F-4D, AND F-4C-20 64-997 AND UP.
- 14** F-4E-40 68-452 AND UP.
- 15** RF-4C-40 68-594 AND UP.
- 16** F-4D-39 68-6912 AND UP.
- 17** F-4E-39 68-410 AND UP.
- 18** RF-4C-39 68-577 AND UP.
- 19** BLACK/ALUMINUM COLOR VISIBLE (SAFE), YELLOW COLOR VISIBLE (UNSAFE).

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5-5