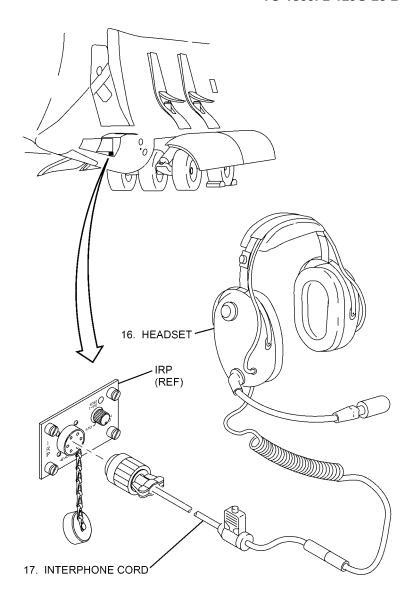


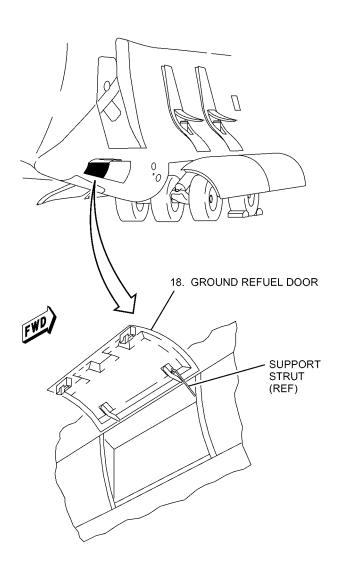
ICN-88277-G1228648-001-01

- 16. (B) Disconnect headset from interphone cord.
- 17. (B) Disconnect interphone cord from IRP.



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18. (B) Remove support strut; close and latch ground refuel door (183JRD).



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12-28-02-5A 2-181/(2-182 blank)

# AIRCRAFT TO AIRCRAFT DEFUELING -CHECKLIST (12-28-03)

# **GENERAL MAINTENANCE INPUT CONDITIONS:**

Applicability:

Аррисарику.	Task
All	All
Additional information:	
Accomplishment of this procedure shall be followed in exact step-by-step <b>CHECKLIST</b> sequence to prevent damage to equipment or injury to personnel.  This procedure consists of the following tasks:	<b>Task</b> 03-2
<ul><li>03-1. Preparation.</li><li>03-2. Single point defueling.</li><li>03-3. Follow-on maintenance.</li></ul>	
NOTE	Task
<ul> <li>This procedure can be accomplished for one tank or multiple tanks simultaneously.</li> </ul>	All
<ul> <li>Night vision goggles are approved for use when defueling procedures require them. These procedures shall be used in conjunction with local directives.</li> </ul>	All
Additional data:	Task
TO 1300i-2-10JG-60-1	03-1, 03-3
TO 1300i-2-12JG-29-1	03-1
TO 1300i-2-49JG-00-1	03-1

#### Personnel recommended:

**Task** 

Two

A11

Person (A) supervisor.

Person (B) panel operator.

# Safety conditions:

Task

# WARNING

 The use of personal protective equipment is mandatory to perform this procedure. The applicable Safety Data Sheet (SDS) will identify special protection information. Failure to comply may cause injury to personnel. All

 Maintenance shall not be performed under the cargo floor or inside the tail section while fueling is in progress. Failure to comply may cause injury to personnel and/or damage to aircraft. A11

 Maintenance shall not be performed on the Countermeasures Dispense System (CMDS) while Servicing Refueling is in progress. Failure to comply may cause injury to personnel and/or damage to aircraft. A11

• (FOR IRCM AIRCRAFT ONLY) Maintenance shall not be performed on the Infrared Countermeasures (IRCM) system while defueling service is in progress. IRCM aircraft can be identified by the components listed in 05-10-06, task 06-1. Failure to comply could cause injury to personnel and/or damage to equipment.

A11

# **Support equipment:**

<u>Nomenclature</u>	PN	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Container, Fuel		TO 00-25-172	AR	03-3

# Supplies:

<u>Nomenclature</u>	<u>PN</u>	<b>Specification</b>	<u>Qty</u>	<u>Task</u>
NA				

#### 03-1. PREPARATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "General Maintenance Input Conditions" page for task specific safety conditions.
- 3. Perform fuel team briefing (TO 1300i-2-12JG-28-2, 12-28-00, para 1-6).

#### **NOTE**

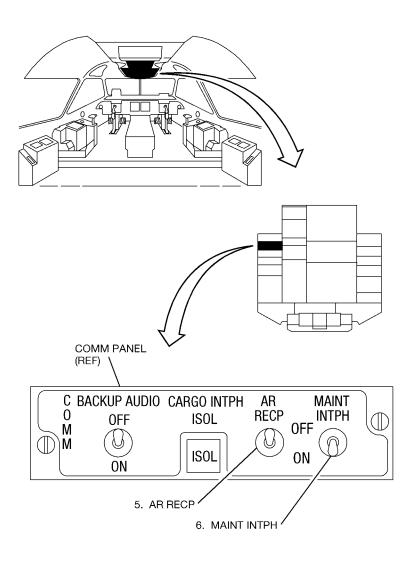
Auxiliary Power Unit (APU) may be used if external electrical power source is not available (49-00-01).

4. Connect external electrical power (10-61-01, task 01-1).

#### NOTE

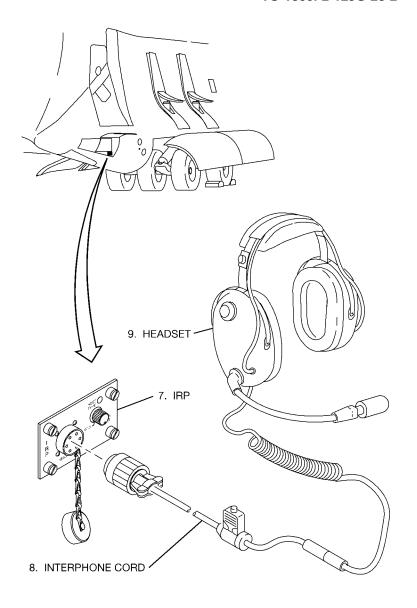
Wireless headsets or equivalent can be used in place of the interphone system.

- 5. (B) Set AR RECP switch on COMM panel to OFF.
- 6. (B) Set MAINT INTPH switch to ON.



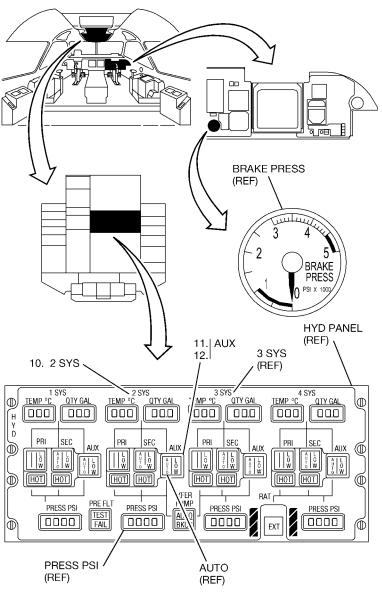
ICN-88277-G1228493-001-01

- 7. (B) Locate desired IRP.
- 8. (B) Connect interphone cord to IRP.
- 9. (B) Connect headset to interphone cord.



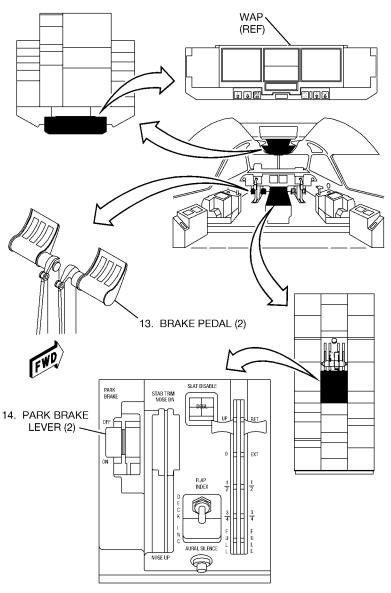
ICN-88277-G1228494-002-01

- 10. (B) Check hydraulic system reservoir **2 SYS** and **3 SYS** quantity for sufficient hydraulic systems levels in gallons on **HYD** panel.
  - Minimum reservoir quantities are 4 gallons for system 2 and 3 gallons for system 3.
  - Systems within specified limits or service (TO 1300i-2-12JG-29-1, 12-29-00, para 1-9).
- 11. (B) Press 2 SYS, AUX switchlight, on HYD panel.
  - AUTO light comes on.
  - PRESS PSI indicator reads 3800-4200.
  - BRAKE PRESS indicator on instrument panel reads 3800-4200.
- 12. (B) Press 2 SYS, AUX switchlight, on HYD panel.
  - AUTO light goes off.



ICN-88277-G1228495-001-01

- 13. (B) Press and hold brake pedals.
- 14. (B) Set PARK BRAKE levers to ON and release brake pedals.
  - PARK BRAKE ON L, R is displayed on the Warning and caution Annunciator Panel (WAP).

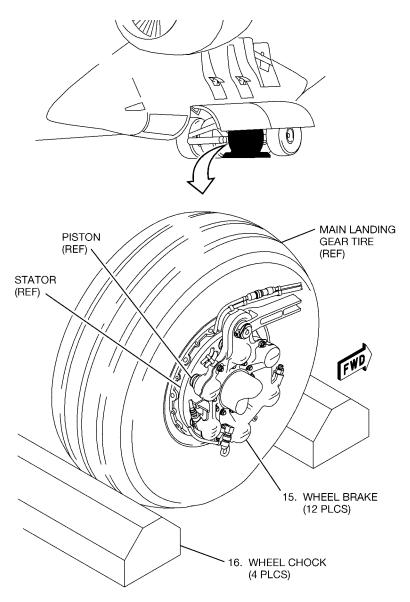


ICN-88277-G1228496-001-01

#### **NOTE**

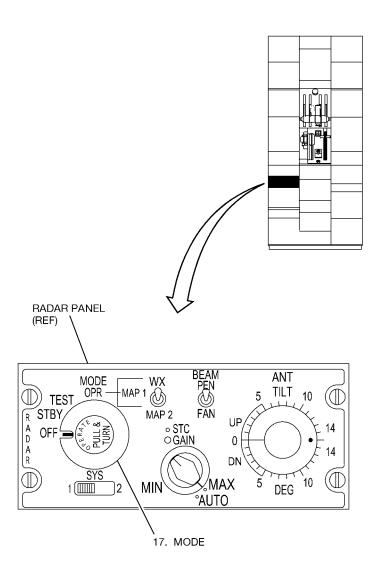
Wheel brakes are set when pistons are pressed against the stator.

- 15. (A) Visually inspect wheel brakes to ensure they are set.
- 16. (A) Position wheel chocks approximately 2 inches forward and aft of main landing gear tires.



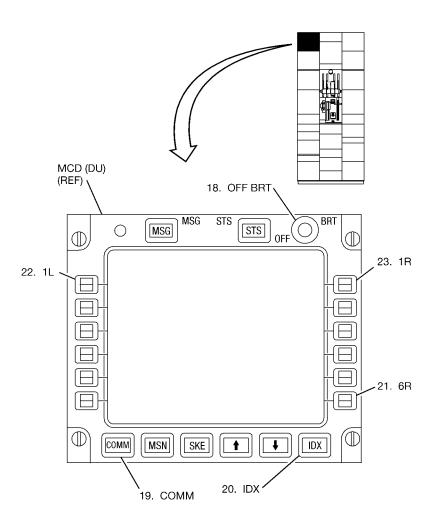
ICN-88277-G1228497-001-01

17. (B) Ensure MODE switch on RADAR panel is set to OFF.



ICN-88277-G1228498-001-01

- 18. (B) Rotate **OFF BRT** knob on **MCD** (**DU**) clockwise.
  - Characters on MCD (DU) come on.
- 19. (B) Press COMM key.
  - COMM/NAV SUMMARY is displayed.
- 20. (B) Press IDX key.
  - COMM INDEX 1 is displayed.
- 21. (B) Press 6R Line Select (LS) key.
  - NAV EMITTER CONTROL PG1 is displayed.
- 22. (B) Press 1L LS key.
  - STANDBY is displayed.
- 23. (B) Press 1R LS key.
  - STANDBY is displayed.



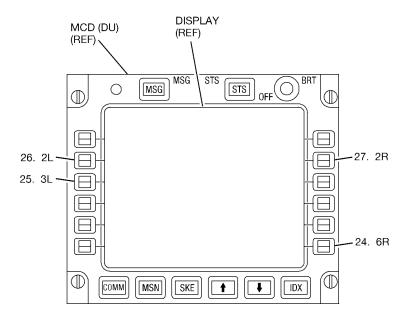
ICN-88277-G1228499-001-01

- 24. (B) Press 6R LS key.
  - **COMM INDEX 1** is displayed.
- 25. (B) Press 3L LS key.
  - HF radios selected.

#### **NOTE**

Pressing the LS key will cycle through the operational modes of the HF radio.

- 26. (B) Press 2L LS key.
  - MODE:UV, LV, AM, OFF is displayed.
  - →**OFF** is displayed.
- 27. (B) Press 2R LS key.
  - MODE:UV, LV, AM, OFF is displayed.
  - →**OFF** is displayed.



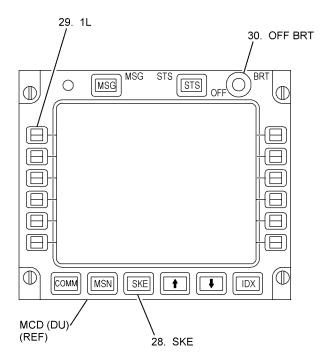
ICN-88277-G1228500-001-01

- 28. (B) Press SKE key.
  - SKE SET UP 1/2 is displayed.

#### **NOTE**

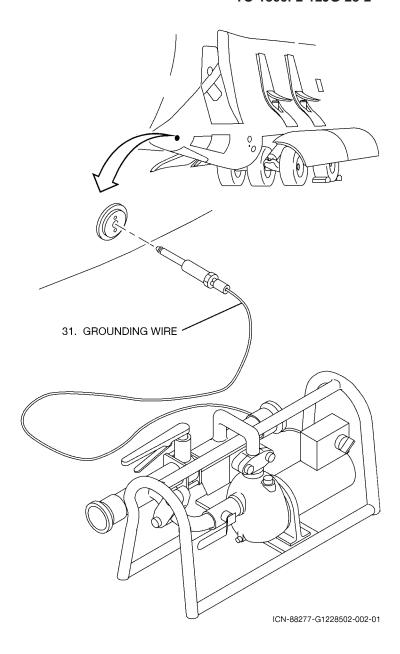
Pressing 1L LS key toggles between **STANDBY**, **NORMAL**, **MAX** and **SILENT** modes.

- 29. (B) Press 1L LS key until STANDBY is displayed.
  - STANDBY is displayed.
- 30. (B) Rotate **OFF BRT** knob to **OFF**.
  - Characters on MCD (DU) go off.

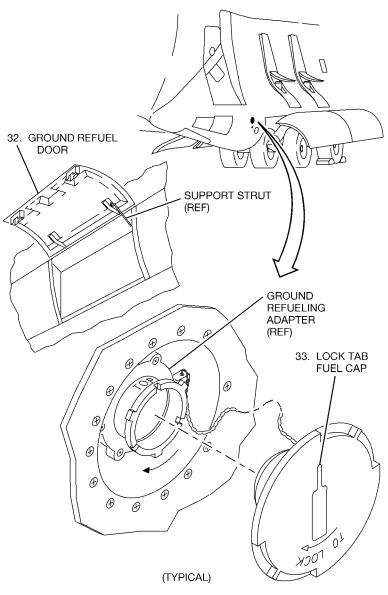


ICN-88277-G1228501-002-01

31. (A) Connect grounding wire from defueling module to aircraft.

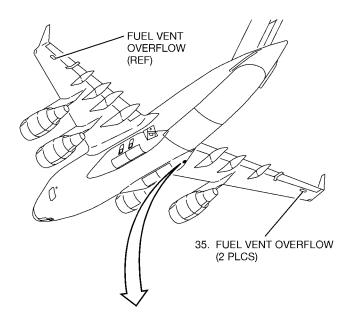


- 32. (B) Unlatch and open ground refuel door (183JRD); install support strut.
- 33. (B) Press lock tab and remove fuel cap from ground refueling adapter.



ICN-88277-G1228503-002-01

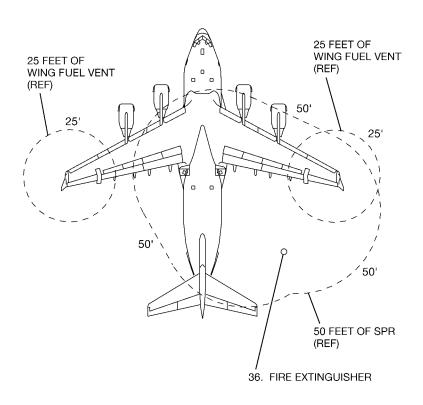
- 34. (B) Ensure **FUEL MANIFOLD DRAIN** valve is in **CLOSED** position.
- 35. (B) Ensure fuel vent overflows are free of obstructions.



# FUEL MANIFOLD DRAIN MANIFOLD DRAIN OPEN CLOSED SCAVENGE DRAIN OPEN FWD

ICN-88277-G1228504-001-01

36. (A) Place fire extinguisher within 50 feet of Single Point Refueling (SPR), but outside 25 feet wing fuel vent Fuel Servicing Safety Zone (FSSZ).



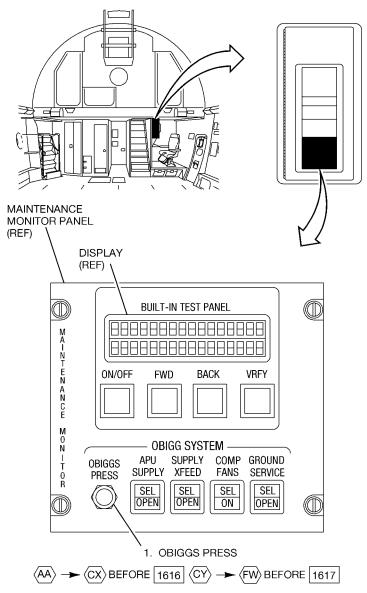
ICN-88277-G1228559-001-01

## 03-2. SINGLE POINT DEFUELING.

#### NOTE

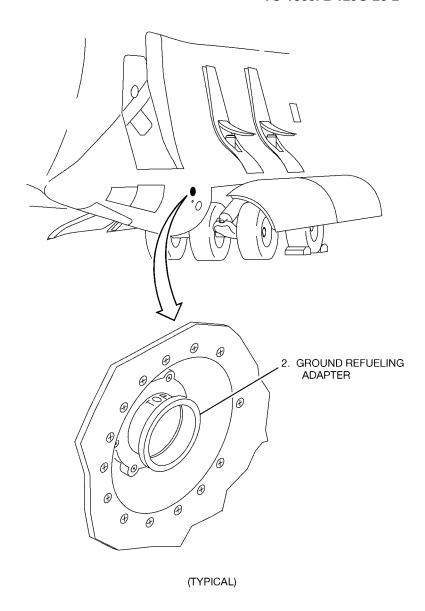
(AA) → (CX) BEFORE 1616 (CY) → (FW) BEFORE 1617 When OnBoard Inert Gas Generating System (OBIGGS) pressure is needed, OBIGGS shall indicate a minimum pressure of 100 psi to ensure proper inerting.

- (AA) → (CX) BEFORE 1616 (CY) → (FW) BEFORE 1617 (A)
   Press OBIGGS PRESS switch on MAINTENANCE MONITOR panel until reading is displayed.
  - Display reads L OBIGGS and R OBIGGS system pressure.
- 1.  $\langle AA \rangle \rightarrow \langle CX \rangle$  AFTER 1616  $\langle CY \rangle \rightarrow \langle FW \rangle$  AFTER 1617  $\langle FX \rangle \rightarrow$  No action required.



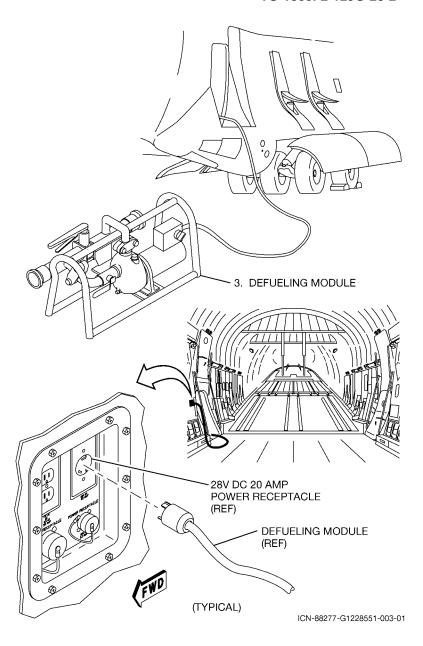
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2. (B) Visually check ground refueling adapter for cracks, distortion, and excessive wear.



ICN-88277-G1228518-002-01

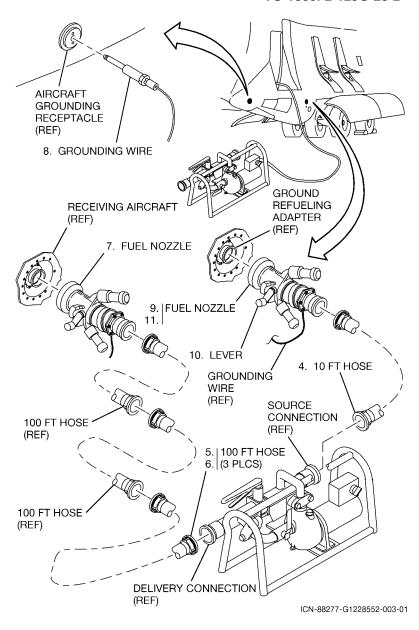
3. (B) Attach defueling module to 24-28 VDC power.



#### **NOTE**

When refueling two aircraft simultaneously repeat steps 4 thru 11.

- 4. (B) Attach 10-foot hose to defueling module fuel source connection.
- 5. (B) Attach 100-foot hose to defueling module fuel delivery connection.
- 6. (B) Attach additional 100-foot hose sections together to desired length.
- 7. (A) Ensure fuel nozzle is connected to receiving aircraft.
- 8. (B) Attach grounding wire from fuel nozzle to aircraft grounding receptacle.
- 9. (B) Connect fuel nozzle to ground refueling adapter.
- 10. (B) Move lever to open position.
- 11. (B) Perform fuel nozzle lock check by attempting to remove fuel nozzle with lever in open (flow) position.



- 12. (B) Set **POWER** switch on Ground Refueling Control (GRC) panel to **DEFUEL**.
  - X-FEED OPEN lights come on.
- 13. (B) Set **TEST SELECT** switch to **LAMP TEST**.
  - All panel lights come on.

#### **NOTE**

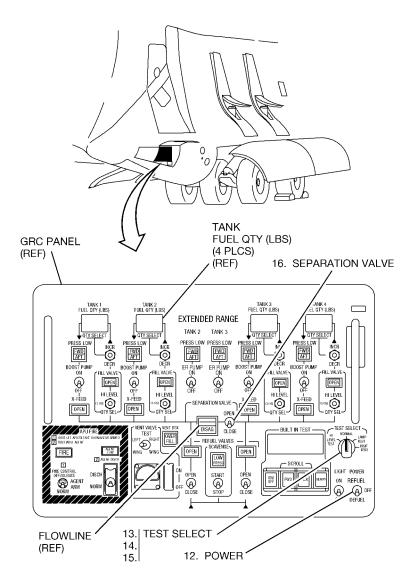
This sequence will repeat itself until **TEST SELECT** switch is set to **NORMAL**.

- 14. (B) Set **TEST SELECT** switch to **DIGIT TEST**.
  - All TANK FUEL QTY (LBS) indicators comes on for 3 seconds.
  - All TANK FUEL QTY (LBS) indicators display all 8 's for 3 seconds.
  - All TANK FUEL QTY (LBS) indicators go off for 2 seconds.
- 15. (B) Set TEST SELECT switch to NORMAL.
  - All **TANK FUEL QTY (LBS)** indicators display fuel quantity in each tank.

#### NOTE

When multiple aircraft are to be refueled simultaneously **SEPARATION VALVE** switch should be kept in **CLOSE** position.

16. (B) Set **SEPARATION VALVE** switch to **OPEN**.



ICN-88277-G1228519-002-01

#### **NOTE**

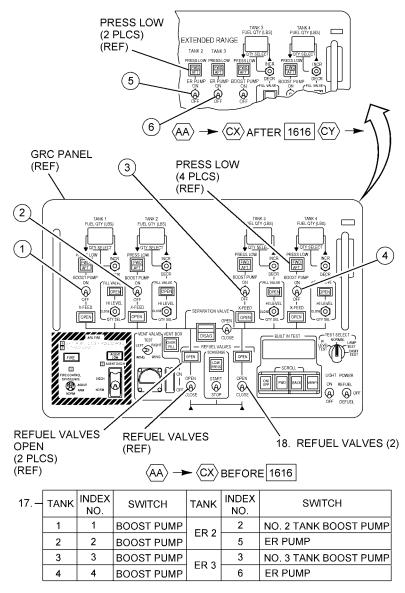
 $\langle \overline{AA} \rangle \rightarrow \langle \overline{CX} \rangle$  AFTER 1616  $\langle \overline{CY} \rangle \rightarrow$  Extended Range (ER) pumps shall only be operated when total aircraft fuel quantity on gauges read 165,000 lbs or more.

- 17. (B) Set **BOOST PUMP** switches to **ON**.
  - PRESS LOW light comes on momentarily.

#### NOTE

Left **REFUEL VALVES** switch correlates to the forward fuel receptacle. Right **REFUEL VALVES** switch correlates to the aft fuel receptacle.

- 18. (B) Set **REFUEL VALVES** switch to **OPEN**.
  - **REFUEL VALVES OPEN** light comes on.



ICN-88277-G1228521-003-01

# WARNING

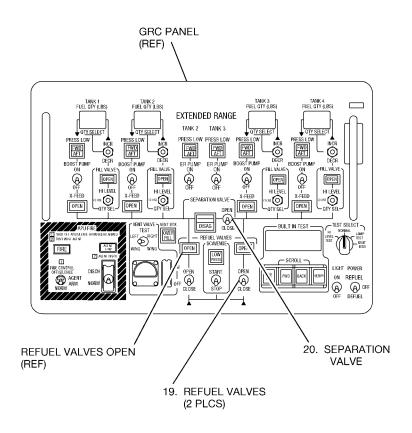
Do not operate pumps for longer than 5 minutes with **PRESSURE LOW** light on continuously. Failure to comply may cause injury to personnel and/or damage to aircraft.

- 19. (A,B) Monitor defueling operation until required level of fuel is reached on receiving aircraft, then set **REFUEL VALVES** switch to **CLOSE**.
  - REFUEL VALVES OPEN light goes off.
  - Fuel flow stops.

#### **NOTE**

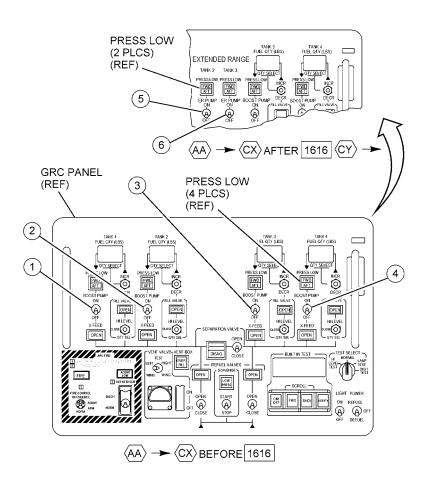
Receiving aircraft can be disconnected at this time.

20. (B) Set **SEPARATION VALVE** switch to **CLOSE**.



ICN-88277-G1228523-003-01

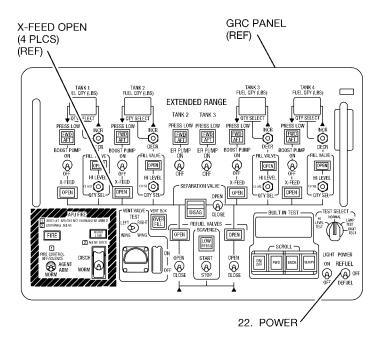
21. (B) Set **BOOST PUMP** switches to **OFF**.



21. —	TANK	INDEX NO.	SWITCH	TANK	INDEX NO.	SWITCH	
	1	1	BOOST PUMP	ER 2	2	NO. 2 TANK BOOST PUMP	
	2	2	BOOST PUMP	ER Z	5	ER PUMP	
	3	3	BOOST PUMP	ER 3	3	NO. 3 TANK BOOST PUMP	
	4	4	BOOST PUMP	EK 3	6	ER PUMP	

ICN-88277-G1228522-004-01

- 22. (B) Set **POWER** switch on GRC panel to **REFUEL**.
  - X-FEED OPEN lights go off.



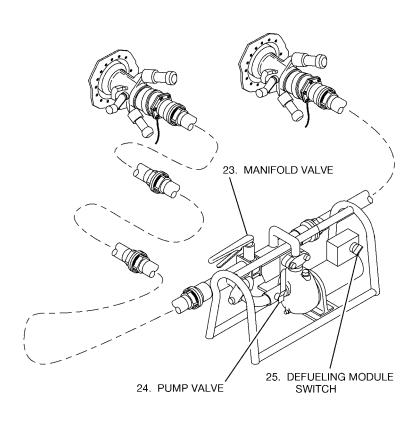
ICN-88277-G1228525-003-01

- 23. (B) Set manifold valve on defueling module to close.
- 24. (B) Set pump valve on defueling module to open.

#### **NOTE**

When multiple aircraft are going to be refueled a quick evacuation of the hose can be done without using squeegee.

25. (B) Turn defueling module switch to **START** and evacuate long hose; augment fuel evacuation with squeegee.

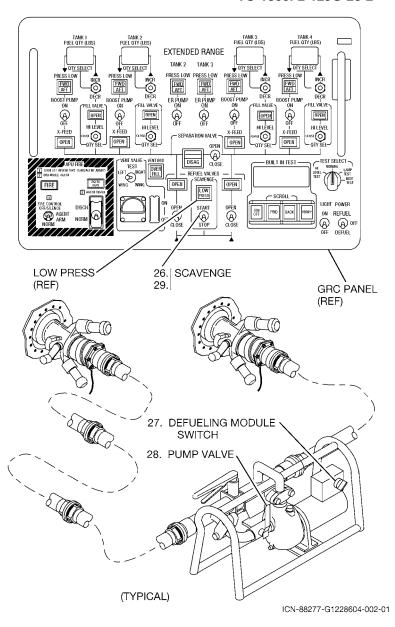


ICN-88277-G1228603-002-01

#### NOTE

**SCAVENGE LOW PRESS** light will intermittently come on for approximately 30 seconds and then come on steady when fuel scavenge is complete.

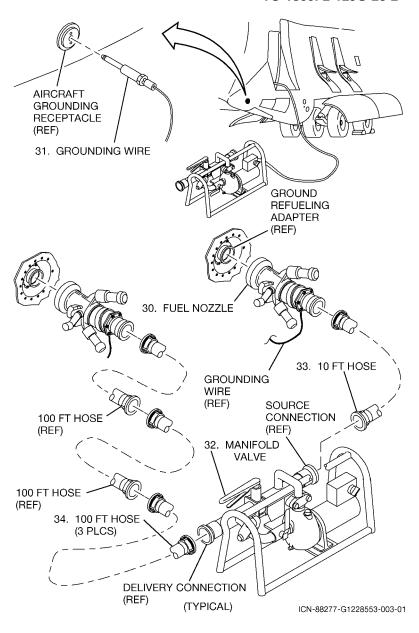
- 26. (B) Set **SCAVENGE** switch to **START**.
  - LOW PRESS light comes on steady for one minute.
- 27. (B) Turn defueling module switch to **OFF** when evacuation of fuel is complete.
- 28. (B) Set pump valve to close.
- 29. (B) Set **SCAVENGE** switch to **STOP**.
  - LOW PRESS light goes off.



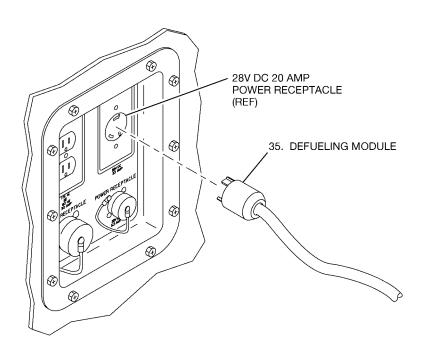
#### **NOTE**

When multiple aircraft are to be refueled, proceed back to step 7.

- 30. (B) Disconnect fuel nozzle from ground refueling adapter.
- 31. (B) Disconnect fuel nozzle grounding wire from aircraft, grounding receptacle.
- 32. (B) Set manifold valve to open.
- 33. (B) Disconnect 10-foot hose from defueling module fuel source connection.
- 34. (B) Disconnect 100-foot hose from defueling module fuel delivery connection.



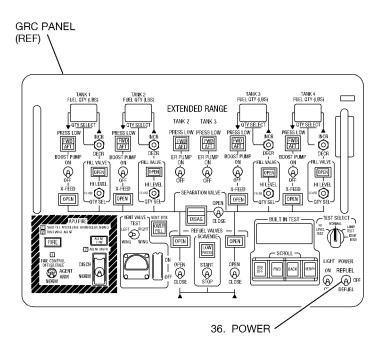
35. (B) Disconnect defueling module from aircraft power.



(TYPICAL)

ICN-88277-G1228554-003-01

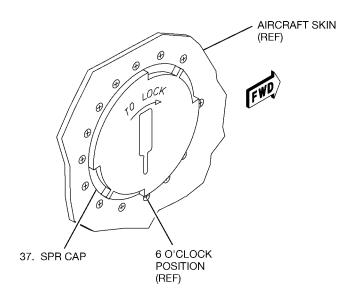
36. (B) Set **POWER** switch on GRC panel to **OFF**.



ICN-88277-G1228528-002-01

# CAUTION

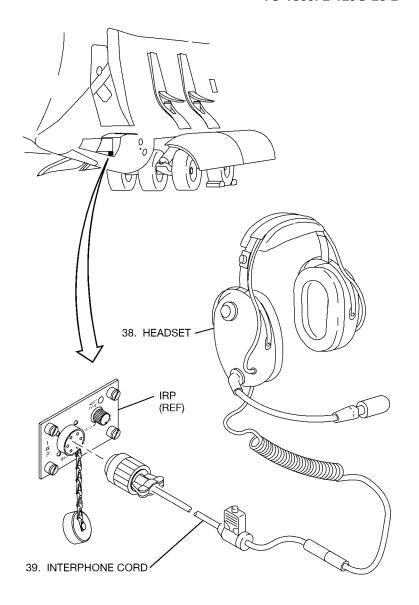
- Ensure lanyard is attached to the aircraft and fuel cap(s). Failure to comply may cause loss of fuel cap(s) and damage the aircraft.
- Ensure fuel cap(s) are flush with the aircraft skin when installed. Failure to comply may cause loss of fuel cap(s) and damage to the aircraft.
- Ensure fuel cap lanyard(s) are not exposed after fuel cap(s) installation. Failure to comply may cause loss of fuel cap(s) and damage to aircraft.
- 37. (B) Install Single Point Refueling (SPR) cap(s) with thin tab locked at the 6 o'clock position.



(TYPICAL)

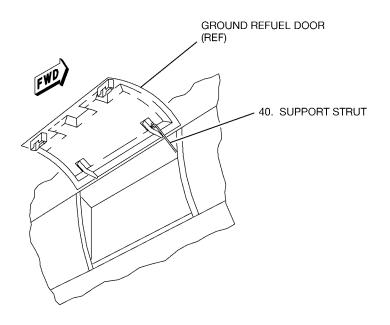
ICN-88277-G1228529-002-01

- 38. (B) Disconnect headset from interphone cord.
- 39. (B) Disconnect interphone cord from IRP.



ICN-88277-G1228530-002-01

40. (B) Remove support strut; close and latch ground refuel door (183JRD).



ICN-88277-G1228531-002-01

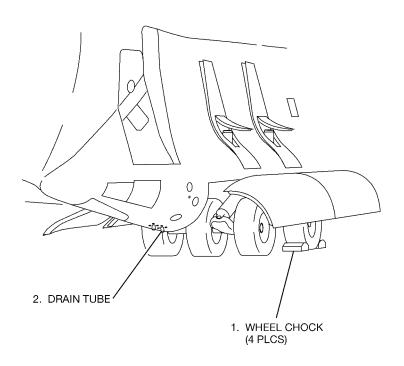
## 03-3. FOLLOW-ON MAINTENANCE.

1. (A) Position wheel chocks against main landing gear tires.

#### **NOTE**

Manifold may contain approximately 1 gallon of fuel, if using the alternate defuel method the manifold contains approximately 45 gallons of fuel.

2. (B) Place fuel container under forward drain tube.

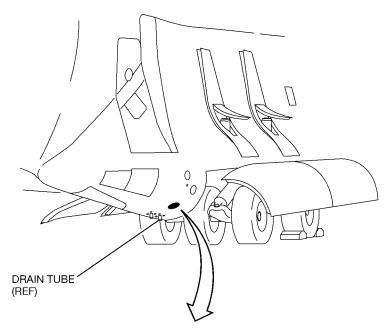


ICN-88277-G1228546-001-01

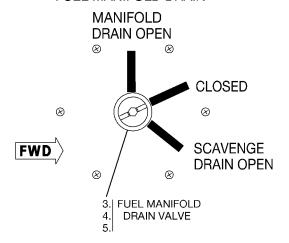
- 3. (A,B) Set FUEL MANIFOLD DRAIN valve to MANIFOLD DRAIN OPEN position.
  - Fuel drains from forward drain tube.

#### **NOTE**

- Scavenge lines may contain approximately 1 pint of fuel.
- When alternate method using overhead fuel panel was performed, scavenge drain not required.
- 4. (A,B) Set FUEL MANIFOLD DRAIN valve to SCAVENGE DRAIN OPEN position.
  - Fuel drains from forward drain tube.
- 5. (A,B) Set FUEL MANIFOLD DRAIN valve to CLOSED position.



## FUEL MANIFOLD DRAIN



ICN-88277-G1228547-001-01

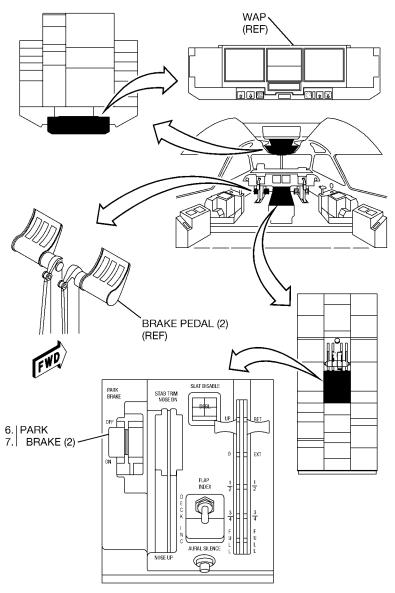
## WARNING

Before releasing parking brakes, make sure personnel, stands, vehicles, or obstructions are clear of nose landing gear, main landing gear, and aircraft. Aircraft will roll FWD or AFT depending on the apron surface and weather conditions. Failure to comply may cause injury to personnel and/or damage to aircraft.

# CAUTION

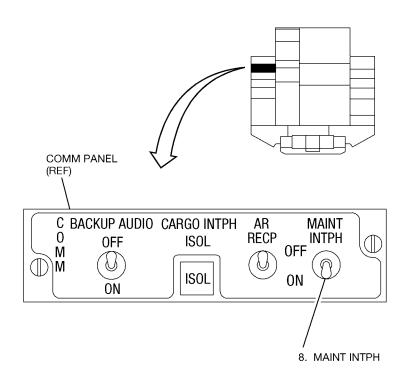
Personnel shall prevent park brake levers from moving to the forward position on their own during brake release. Failure to comply may cause damage to aircraft.

- 6. (B) While supporting **PARK BRAKE** levers, press and release brake pedals.
- 7. (B) Move **PARK BRAKE** levers to OFF.
  - PARK BRAKE ON L, R display on Warning and caution Annunciator Panel (WAP) goes off.



ICN-88277-G1228548-001-01

- 8. (B) Set MAINT INTPH switch on COMM panel to OFF.
- 9. Disconnect external electrical power (10-61-01, task 01-2).



ICN-88277-G1228549-001-01

12-28-03-3 2-253/(2-254 blank)