

BY ORDER OF THE SECRETARY OF THE AIR FORCE **AFI 11-2C-130V3 CL-10**
17 APRIL 2000



Flying Operations

LOADMASTER MAFFS CHECKLIST

This checklist establishes procedures for the operation of C-130 aircraft employed by Mobility Air Forces (MAF) to accomplish their worldwide missions.

This checklist complements AFI 11-2C-130V3, *C-130 Operations Procedures*, and is printed on standard 8 1/2" x 11" bond paper then trimmed to a unique size 4 1/2" x 6 1/2" that will fit the standard plastic C-130 aircrew checklist binders. Units may request copies of this checklist printed on a water proof-based media (in the size outlined) from the OPR. This product reduces weight and eliminates the need for plastic inserts. Limit water proof copies to aircrew only for use in-flight and training purposes.

Summary of Revisions: Redundant pages removed.

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**PART ONE - NORMAL PROCEDURES
MAFFS PRE-FLIGHT CHECKLIST**

(Those items identified by an asterisk need to be accomplished on initial installation only.)

1. Left and Right Hand Dual Rail Locks - Checked; Right Hand Locks Set to 4.0
2. V-Band Clamps on all Tanks - Checked
3. Air Hoses all Tanks - Connected
4. Tie Plates - Checked
5. Tiedown Chains on Control Pallet - Checked
6. Restraint Hooks on Ramp Pallet - Checked
7. Battery - Checked

ELECTRICAL PRE-FLIGHT CHECKLIST

CAUTION

Aft cargo door must be open before lowering ramp

1. Aft Cargo Ramp and Door - Door OPEN/Ramp DOWN
2. Battery - Connected
3. Selector Knob - OFF
4. Air Control Supply Valve - CLOSED
5. Circuit Breaker - ON
- *6. Air Servicing Line between Control Pallet and Tanks - Disconnected

NOTE

If the air control supply tank is less than 600 PSI, service system in accordance with air charging procedures.

7. Aircraft Power - Disconnected/AIRCRAFT Power Light - OFF

8. BATTERY Power Light - ON
9. MAIN POWER Button - Depress/ON
10. The following lights should illuminate (If Applicable):
 - a. MAIN POWER - RED
 - b. Selector Knob OFF - RED
 - c. Tanks 1, 2, 3, 4 and 5 - GREEN (Non-incremental)
 - d. CLOSE ARM - RED
 - e. CLOSE DROP - RED
11. Emergency Selector Valves - AUTOMATIC
12. Aircraft Power - Connected/ AIRCRAFT Power Light ON
13. Battery Power - Disconnected
14. TUBES IN Button - Depress and Hold
15. Air Control Supply Valve - OPEN/150 PSI Pressure Indicated
16. TUBES IN Button - Released
17. Selector Knob - FILL/Green Light ON/Red Light OFF
18. FILL Button - Depress/Red Light ON/Green Light ON
19. Vent Valves - Checked OPEN
20. FILL Button - Depress/Red Light OFF
21. Vent Valves - Checked CLOSED

CAUTION

Ramp must be in horizontal position and cargo door up and locked.

WARNING

Personnel must be clear of tubes.

22. TUBES OUT Button - Depress to Activate
23. TUBES LOCKED Left and Right - Checked/Lights ON
24. Tank Arm Switches - All UP (Incremental System Only)

25. Selector Knob - ON-ARM/Green Light ON

WARNING

All personnel should be positioned forward or aft of all tanks.

26. ON ARM Button - Depress/Red Light ON
27. ARMED Lights - ON
28. ARMED Light Copilot's Position - ON
29. Arming Valves - OPEN Position

WARNING: Stand clear of the discharge valve actuator.

NOTE

Discharge valve will only be activated on initial checkout.

- *30. DROP Button - Depress/Yellow Light ON
*31. Discharge Valves - OPEN
*32. Yellow DROP Button Light - Copilot's Position/ON
*33. Selector Knob - CLOSE DROP/Green Light ON
(Non-incremental)

WARNING: Stand clear of the discharge valve actuator.

- *34. CLOSE DROP Button - Depress/Red Light ON
(Non-incremental)
*35. Discharge Valves - Checked Closed
36. Tank Arm Switches - All DOWN (Incremental System only)
37. Selector Knob - CLOSE ARM/Green Light ON
38. CLOSE ARM Button - Depress/Red Light ON
39. ARMED Lights - OUT

WARNING: Stand clear of the discharge valve actuator.

WARNING: All personnel will be positioned forward or aft of all tanks.

- *40. EMERGENCY DROP Button - Depress/Yellow Light ON
- *41. ON ARM Light - ON/RED
- *42. Discharge Valves - OPEN
- *43. Selector Knob - CLOSE DROP (Non-incremental)

WARNING: Stand clear of the discharge valve actuator.

- *44. CLOSE DROP Button - Depress (Non-incremental)
- *45. Selector Knob - CLOSE ARM
- *46. CLOSE ARM Button - Depress/ARM Lights OFF
- 47. Selector Knob - OFF

WARNING: Personnel must be clear of tubes.

- 48. TUBES IN Button - Depress/GREEN Lights OFF.
- 49. Tubes - IN
- 50. MAIN POWER Button - Depress/OFF
- 51. Circuit Breaker - OFF
- 52. Air Control Supply Valve – CLOSED
- *53. Air Servicing Line between Control Pallet and Tanks - Reconnected

AIR CHARGING PROCEDURES FOR MANUAL EMERGENCY DROP SYSTEM

- 1. Emergency Selector Valves - AUTOMATIC
- 2. Ground Air Supply Hose - Connect to Emergency Drop Cylinder
- 3. Ground Air Supply Control Handle - OPEN
- 4. Emergency Drop Cylinder Valve - OPEN

NOTE

Charge system to 1200 \pm 50 PSI.

5. Emergency Drop Cylinder Valve - CLOSED
6. Ground Air Supply Hose Pressure - Release Pressure
7. Ground Air Supply Hose - Disconnected

MAFFS RETARDANT AND AIR SERVICING PROCEDURES

CAUTION

Before proceeding with steps 1 through 11, high pressure air gauge must indicate a minimum of 600 PSI and electrical power must be connected.

1. Battery - Connected
2. Circuit Breaker - ON
3. MAIN POWER Button - Depress/ON

WARNING

Ensure the cargo door is up and the ramp is down before opening the Air Control Supply Valve.

4. Air Control Supply Valve - OPEN
5. Emergency Drop Control Valve - AUTOMATIC
6. Tubes Out Button - Depress
7. Left and Right Tubes - Out and Locked
8. Cargo Ramp - POSITION AS REQUIRED
9. Retardant Fill Cap - Removed
10. Selector Knob - FILL
11. FILL Button - Depress to Activate
12. VENT Valves - Checked /OPEN
13. FILL Valves - Checked/OPEN

14. ARMING Valves - Checked/CLOSED
15. Ground Nozzle - Connect to Retardant Fill Line
16. Ground Air Supply Hose - Connected

If electrical power fails during filling operations, shut off the retardant fill line immediately.

Monitor high pressure air gauge while loading retardant. Shut off ground air supply handle when 1200 ± 50 PSI is reached and disconnect air supply hose.

- Shut off retardant fill line when the unit indicates full. DO NOT OVER FILL.

18. Retardant Fill Line - CLOSED
19. Ground Nozzle - Disconnected
20. FILL Button - Depress to Deactivate
21. VENT Valve - Checked/CLOSED
22. FILL Valve - Checked/CLOSED
23. Retardant Fill Line Cap - ON
24. Air Control Supply Valve - CLOSED
25. Selector Knob - OFF
26. MAIN POWER Button - Depress/OFF
27. Circuit Breaker - OFF
28. Battery - Disconnected

**MAFFS IN-FLIGHT OPERATING PROCEDURES
(OTHER THAN INCREMENTAL SYSTEM)**

BEFORE TAKE-OFF PROCEDURES

1. Battery - Connected
2. Circuit Breaker - ON
3. MAIN POWER Button - Depress/ON
4. Selector Knob - OFF
5. Emergency Selector Valves - AUTOMATIC

WARNING

Ensure the door is up and the ramp is down before opening the air control supply valve.

6. Air Control Supply Valve - OPEN (150 PSI)
7. Tubes Out Button - Depress
8. Left and Right Tubes - Out and Locked
9. Cargo Ramp - UP
10. Discharge Pressure Control - Set to 5 PSI
11. Seat - Adjusted to Reach all Controls
12. Helmets - ON
13. Restraint Harness - ON/CONNECTED

PRE-SLOWDOWN CHECKLIST

1. **“PRE-SLOWDOWN CHECKLIST ACKNOWLEDGED”**
(LM)
2. Helmets - ON
3. Left and Right Hand Dual Rail Locks - Checked
4. ADS Ramp Support Arms Connected - Checked

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5. Tiedown Chains - Checked
6. Restraint Hooks on Ramp Pallet - Checked
7. Personnel Restraint Harness - ON and Connected to Anchor Cable
8. **"PRE-SLOWDOWN CHECKS COMPLETE"** (LM, E)

SLOW-DOWN CHECKLIST

WARNING

Prior to arming any tanks all personnel should be positioned forward or aft of all tanks.

CAUTION

The LM will not open the ramp and door until receiving clearance. The aft cargo door must be opened before lowering the ramp.

NOTE

In the event any selected arming light does not illuminate, the emergency drop button should be depressed when directed by the pilot.

1. Aux Pump - ON

CAUTION

The aux pump will remain on throughout the drop.

2. Aft Cargo Ramp and Door - Door Open/Ramp Down
3. Air Control Supply Valve - Checked OPEN (150 PSI)
4. TUBES OUT Button - Depress
5. Left and Right Tubes - Out and Locked
6. Aft Cargo Door - CLOSED

7. Cabin Pressurization Safety Valve (Cargo Door) -
Checked/CLOSED

CAUTION

The pressure gauge must be set at 5 PSI prior to arming system.

8. Selector Knob - ON ARM
9. ON ARM Button - Depress
10. ARMED Lights - Illuminated
11. Pressure Selector Knob - Turn to Desired Pressure Setting
12. **"SLOWDOWN CHECKS COMPLETE "** (LM, E)

ONE MINUTE WARNING

1. **"ONE MINUTE WARNING ACKNOWLEDGED "** (LM)

WARNING: Stand clear of discharge valve actuator.

RELEASE POINT CHECKLIST

1. DROP Button - Depress when directed by Pilot
2. Status of Load - **"LOAD CLEAR"** (Or condition) (LM)
3. Selector Knob - CLOSE DROP

WARNING: Stand clear of discharge valve actuator.

4. CLOSE DROP Button - Depress and hold until dump valves close.

COMPLETION OF DROP CHECKLIST

1. Selector knob - CLOSE ARM
2. CLOSE ARM Button - Depress

NOTE

Wait 30 seconds before operating TUBES IN button.

3. Selector Knob - OFF
4. Pressure Gauge Selector Knob - Set to 5 PSI
5. Aft Cargo Door - OPEN
6. TUBES IN Button - Depress
7. Left and Right Tubes - IN
8. Cargo Ramp - CLOSED
9. Aft Cargo Door - CLOSED and LOCKED
10. Aux Pump - OFF
11. MAIN POWER Button - Depress/OFF
12. Circuit Breaker - OFF
13. Air Control Supply Valve - CLOSED
14. Battery - Disconnected
15. **"DROP CHECKS COMPLETE"** (LM, E)

**MAFFS IN-FLIGHT OPERATING PROCEDURES
(INCREMENTAL SYSTEM)****BEFORE TAKE-OFF PROCEDURES**

1. Battery - Connected
2. Circuit Breaker – ON

3. MAIN POWER Button - Depress/ON
4. Selector Knob - OFF
5. Tank Arm Switches - All DOWN/Lights OUT
6. Emergency Selector Valves - AUTOMATIC

WARNING

Ensure the door is up and the ramp is down before opening the air control supply valve.

7. Air Control Supply Valve - OPEN (150 PSI)
8. Tubes Out Button - Depress
9. Left and Right Tubes - Out and Locked
10. Cargo Ramp - UP
11. Discharge Pressure Control - Set to 5 PSI
12. Seat - Adjusted to Reach all Controls
13. Helmets - ON
14. Restraint Harness - ON/CONNECTED

PRE-SLOWDOWN CHECKLIST

1. **"PRE-SLOWDOWN CHECKLIST ACKNOWLEDGED"**
(LM)
2. Helmets - ON
3. Left and Right Hand Dual Rail Locks - Checked
4. ADS Ramp Support Arms Connected - Checked
5. Tiedown Chains - Checked
6. Restraint Hooks on Ramp Pallet - Checked
7. Personnel Restraint Harness - ON and Connected to
Anchor Cable
8. **"PRE-SLOWDOWN CHECKS COMPLETE"** (LM, E)

SLOW-DOWN CHECKLIST**WARNING**

Prior to arming any tanks all personnel should be positioned forward or aft of all tanks.

CAUTION

The LM will not open the ramp and door until receiving clearance. The aft cargo door must be opened before lowering the ramp.

NOTE

In the event any selected arming light does illuminate, the emergency drop button should be depressed when directed by the pilot.

1. Aux Pump - ON

CAUTION

The aux pump will remain on throughout the drop.

2. Aft Cargo Ramp and Door - Door Open/Ramp Down
3. Air Control Supply Valve - OPEN (150 PSI)
4. TUBES OUT Button - Depress
5. Left and Right Tubes - Out and Locked
6. Aft Cargo Door - CLOSED
7. Cabin Pressurization Safety Valve (Cargo Door) – Checked /CLOSED

CAUTION

The pressure gauge must be set a 5 PSI prior to arming system.

NOTE

At this time, it is necessary to finalize the mode of fluid discharged (1, 2, or 3 increments). However, in the event of an air abort after system has been armed, accomplish the Completion of Drop Checklist.

ONE (1) INCREMENT DROP

(Total Load: 3,000 Gallons)

SETUP CHECKLIST

1. Tank Arm Switches - All UP
2. Selector Knob - ARM
3. ON ARM Button - Depress to Activate
4. TANK ARM Lights and ALL ARMED Light - All ON
5. Discharge Pressure Control - Set to Desired Drop Pressure
6. "SLOWDOWN CHECKS COMPLETE" (LM, E)

ONE-MINUTE WARNING

1. "ONE MINUTE WARNING ACKNOWLEDGED" (LM)

WARNING: Stand clear of discharge valve actuator.

RELEASE POINT CHECKLIST

1. DROP Button - Depress when directed by the Pilot.
2. Status of Load - "**LOAD CLEAR**" (Or condition) (LM)
3. Drop Valves - OPEN (Automatically Close)
4. Tank Fluid Level - System Empty

CAUTION

Any premature closure of the drop valves may indicate a problem which could result in hazardous over-pressurization of the discharge tubes. Discontinue system use and investigate cause in accordance with sections 7.4.1.2, 7.4.2.1, 7.4.2.2, and 8 of the MAFFS maintenance manual.

COMPLETION OF DROP CHECKLIST

1. Selector Knob - CLOSE ARM
2. CLOSE ARM Button - Depress

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3. Selector Knob - OFF
4. Discharge Pressure Control - Return to 5 PSI
5. Tank Arm Switches - All DOWN/Lights OFF
6. Aft Cargo Door - OPEN

NOTE

Allow 30 seconds between depressing CLOSE ARM button and TUBES IN button.

7. TUBES IN Button - Depress
8. Left and Right Tubes - IN
9. Cargo Ramp and Aft Cargo Door – CLOSED
10. Aux Pump - OFF
11. MAIN POWER Button - Depress/OFF
12. Circuit Breaker - OFF
13. Air Control Supply Valve - CLOSED
14. Battery - Disconnected
15. **"DROP CHECKS COMPLETE"** (LM, E)

TWO (2) INCREMENT DROP

(2 DROPS: 1,500 Gallons Each)

SETUP FOR 1ST DROP

(1,500 Gallons)

WARNING

The drop sequences specified must be followed to avoid adverse center of gravity during flight.

1. Tank Arm Switches - 2 and 3 UP
2. Selector Knob - ARM

3. ON ARM Button - Depress to Activate
4. TANK ARM Lights - 2 and 3 ON
5. Discharge Pressure Control - Set to Desired Drop Pressure
6. **"SLOWDOWN CHECKS COMPLETE"** (LM, E)

ONE-MINUTE WARNING

1. **"ONE MINUTE WARNING ACKNOWLEDGED"** (LM)

WARNING: Stand clear of discharge valve actuator.

RELEASE POINT CHECKLIST

1. DROP Button - Depress when directed by Pilot
2. Status of Load - **"LOAD CLEAR"** (Or Condition) (LM)
3. Drop Valves - OPEN (Automatically Close)

CAUTION

Any premature closure of the drop valves may indicate a problem which could result in hazardous over-pressurization of the discharge tubes. Discontinue system use and investigate cause in accordance with the MAFFS maintenance manual.

NOTE

Proceed with steps 4 through 9 and soon as possible after discharge is complete to minimize leakage of large check valves.

4. Tank Fluid Level - Tanks 2 and 3 Empty
5. Discharge Pressure Control - Return to 5 PSI.
6. Tank Arm Switches - 1 UP (2 and 3 will remain up)
7. TANK ARM Lights - 1, 2, and 3 ON

CAUTION

Limit maximum discharge pressure setting to 30 PSI during fluid transfer, or lower drop setting.

8. Discharge Pressure Control - Set to Desired Drop Pressure.
9. Tank Fluid Level - Tank 1 Transferred into Tubes
10. Discharge Pressure Control - Return to 5 PSI

1. Tank Arm Switches - 4 and 5 UP (1, 2, 3 will remain UP)
2. TANK ARM Lights and ALL ARMED Light - All ON

Limit maximum discharge pressure setting to 30 PSI or lower for final increment drop.

3. Discharge Pressure Control - Set to Desired Drop Pressure
4. **"SLOWDOWN CHECKS COMPLETE"** (LM, E)

1. "ONE MINUTE WARNING ACKNOWLEDGED" (LM)

RELEASE POINT CHECKLIST

1. DROP Button - Depress when directed by Pilot
2. Status of Load - "**LOAD CLEAR**" (Or Condition) (LM)
3. Drop Valves - OPEN (Automatically Close)
4. Tank Fluid Level - All Tanks Empty

Any premature closure of the drop valves may indicate a problem which could result in hazardous over-pressurization of the discharge tubes. Discontinue system use and investigate cause in accordance with the MAFFS maintenance manual.

COMPLETION OF DROP CHECKLIST

1. Selector Knob - CLOSE ARM
2. CLOSE ARM Button - Depress
3. Selector Knob - OFF
4. Discharge Pressure Control - Return to 5 PSI
5. Tank Arm Switches - All DOWN/Lights OFF
6. Aft Cargo Door - OPEN

NOTE

Allow 30 seconds between depressing CLOSE ARM button and TUBES IN button.

7. TUBES IN Button - Depress
8. Left and Right Tubes - IN
9. Cargo Ramp and Aft Cargo Door - CLOSED
10. Aux Pump - OFF
11. MAIN POWER Button - Depress/OFF
12. Circuit Breaker - OFF
13. Air Control Supply Valve - CLOSED
14. Battery - Disconnected
15. **"DROP CHECKS COMPLETE "** (LM, E)

**THREE INCREMENT DROP
(3 DROPS: 1,000 Gallons Each)**

**SETUP FOR FIRST DROP
(1,000 Gallons)**

WARNING

The drop sequences specified must be followed to avoid adverse center of gravity during flight.

1. Tank Arm Switch - Tank 3 UP

2. Selector Knob - ARM
3. ON ARM Button - Depress to Activate
4. TANK ARM Light - Tank 3 ON
5. Discharge Pressure Control - Set to Desired Drop Pressure
6. **"SLOWDOWN CHECKS COMPLETE "** (LM, E)

ONE-MINUTE WARNING

1. **"ONE MINUTE WARNING ACKNOWLEDGED"** (LM)

WARNING: Stand clear of discharge valve actuator.

RELEASE POINT CHECKLIST

1. DROP Button - Depress when directed by Pilot
2. Status of Load - **"LOAD CLEAR"** (Or Condition) (LM)
3. Drop Valves - Open (Automatically Close)
4. Tank Fluid Level - Tank 3 Empty

CAUTION

Any premature closure of the drop valves may indicate a problem which could result in hazardous over-pressurization of the discharge tubes. Discontinue system use and investigate cause in accordance with the MAFFS maintenance manual.

NOTE

Proceed with steps 5 through 10 as soon as possible after discharge is complete to minimize internal leakage of large check valves.

5. Discharge Pressure Control - Return to 5 PSI
6. Tank Arm Switches - Tank 2 UP (3 remains UP)
7. TANK ARM Lights - 2 and 3 ON
8. Discharge Pressure Control - Set to Desired Drop Pressure
9. Tank Fluid Level - Tank 2 Transferred into Tubes
10. Discharge Pressure Control - Return to 5 PSI

SETUP FOR SECOND DROP
(1000 Gallons)

1. Tank arm switches - Tank 4 UP (2 and 3 remain UP)
2. TANK ARM Lights - 2, 3 and 4 ON
3. Discharge Pressure Control - Set to Desired Drop Pressure
4. "SLOWDOWN CHECKS COMPLETE" (LM, E)

ONE-MINUTE WARNING

1. "ONE MINUTE WARNING ACKNOWLEDGED" (LM)

WARNING

Stand clear of discharge actuator valve.

RELEASE POINT CHECKLIST

1. DROP Button - Depress, when directed by Pilot
2. Status of Load - "LOAD CLEAR" (Or Condition) (LM)
3. Drop Valves - OPEN (Automatically Close)
4. Tank Fluid Level - Tanks 2, 3 and 4 Empty

CAUTION

Any premature closure of the drop valves may indicate a problem which could result in hazardous over-pressurization of the discharge tubes. Discontinue system use and investigate cause in accordance with the MAFFS maintenance manual.

NOTE

Proceed with steps 5 through 10 as soon as possible after discharge is complete to minimize internal leakage of large check valves.

5. Discharge Pressure Control – Return to 5 PSI
6. Tank Arm Switches – Tank 1 UP (2, 3 and 4 remain UP)

7. TANK ARM Lights - 1, 2, 3, and 4 ON

CAUTION

Limit maximum discharge setting to 30 PSI during fluid transfer, or lower drop setting.

8. Discharge Pressure Control - Set to Desired Pressure
9. Tank Fluid Level - Tank 1 Transferred into Tubes
10. Discharge Pressure Control – Return to 5 PSI

SETUP FOR THIRD DROP
(1,000 Gallons)

1. Tank Arm Switches – Tank 5 UP (1, 2, 3 and 4 remain UP)
2. TANK ARM and ALL ARMED Lights - All ON

CAUTION

Limit maximum discharge pressure setting to 30 PSI or less for final increment drop.

3. Discharge Pressure Control - Set to Desired Drop Pressure
4. "SLOWDOWN CHECKS COMPLETE" (LM, E)

ONE-MINUTE WARNING

1. "ONE MINUTE WARNING ACKNOWLEDGED" (LM)

WARNING: Stand clear of the discharge valve actuator.

RELEASE POINT CHECKLIST

1. DROP Button - Depress when directed by Pilot
2. "LOAD CLEAR" (Or Condition) (LM)
3. Drop Valves – OPEN (Automatically Close)

4. Tank Fluid Level - All Tanks Empty

CAUTION

Any premature closure of the drop valves may indicate a problem which could result in hazardous over-pressurization of discharge tubes. Discontinue system use and investigate cause in accordance with the MAFFS maintenance manual.

COMPLETION OF DROP CHECKLIST

1. Selector Knob - CLOSE ARM
2. CLOSE ARM Button - Depress
3. Selector Knob - OFF
4. Discharge Pressure Control - Return to 5 PSI
5. Tank Arm Switches - All DOWN/Lights OFF
6. Aft Cargo Door - OPEN

NOTE

Allow 30 seconds between depressing CLOSE ARM button and TUBES IN button.

7. TUBES IN Button - Depress
8. Left and Right Tubes - IN
9. Cargo Ramp and Aft Cargo Door - CLOSED
10. Aux Pump - OFF
11. MAIN POWER Button - Depress/OFF
12. Circuit Breaker - OFF
13. Air Control Supply Valve - CLOSED
14. Battery - Disconnected
15. **"DROP CHECKS COMPLETE"** (LM, E)

RETARDANT DE-SERVICING PROCEDURES**CAUTION**

Aft cargo door must be opened before lowering the ramp to the horizontal position.

NOTE

Use the following procedures to transfer the retardant from the five modular tanks into the ground storage tank.

1. Aft Cargo Door - OPEN
2. Cargo Ramp - DOWN
3. Right Retardant Fill Line Cap - Removed
4. Ground Fill Line - Connect to Right Retardant Fill Line
5. Circuit Breaker - ON

WARNING

Personnel must be clear of tubes.

6. MAIN POWER Button - Depress/ON
7. Air Control Supply Valve - OPEN
8. TUBES OUT Button - Depress
9. TUBE LOCK Lights - ON
10. Right Hand Retardant Fill Line Check Valve - OPEN
11. Tank Arm Switches - All Up (If Applicable)
12. Selector Knob - ON ARM

WARNING

All personnel should be forward or aft of all tanks.

13. ON ARM Button - Depress
14. Tanks - Empty.
15. Selector Knob - CLOSE ARM

16. CLOSE ARM Button - Depress
17. Tank Arm Switches - All DOWN (If Applicable)
18. Right Hand Retardant Fill Line Check Valve - CLOSED
19. Ground Fill Line - Disconnected
20. Right Retardant Fill Line Cap - ON

NOTE

The left hand tube will not empty through the retardant fill line.

21. TUBES IN Button - Depress
22. Air Control Supply Valve - CLOSED
23. MAIN POWER Button - Depress/OFF
24. Circuit Breaker - OFF

SYSTEM DE-ARMING CHECKLIST

NOTE

In the event of an air abort after the system has been armed, use the following checklist to reset the system for further use.

1. Pressure Gauge Selector Knob - Set to 5 PSI
2. Selector Knob - CLOSE ARM
3. CLOSE ARM Button - Depress
4. Arming Valves - Checked/CLOSED
5. Selector Knob - FILL
6. FILL Button - Depress
7. Vent Valves - Checked/OPEN
8. FILL Valves - Checked/OPEN
9. FILL Button – Depress
10. Vent Valves – Checked/CLOSED

11. Fill Valves - Checked/CLOSED
12. Selector Knob - OFF
13. Tubes In Button - Depress
14. Left and Right Tubes - IN
15. Cargo Ramp - CLOSED
16. Aft Cargo Door - CLOSED
17. Aux Pump - OFF
18. Main Power Button - Depress/OFF
19. Circuit Breaker - OFF
20. Air Control Supply Valve - CLOSED
21. System De-Arm Checklist - COMPLETE

PART TWO - EMERGENCY PROCEDURES

EMERGENCY DROP AFTER TAKEOFF

1. Emergency Drop - "**CLEARED TO DROP**" (P)

WARNING: Stand clear of discharge valve actuator.

2. EMERGENCY DROP Button - Depress

NOTE

Immediately dial up pressure regulator setting to 40 PSI.

3. Status of Load - "**LOAD CLEAR**" (State Condition) (LM)

WARNING: Stand clear of discharge valve actuator.

NOTE

Actions a through n will be accomplished by the LM.

- a. Selector Knob - CLOSE DROP
- b. CLOSE DROP Button - Depress and hold until drop valves close (If required)

- c. Selector Knob - CLOSE ARM and Depress Close Arm Button
- d. Tank Arm Switches - All Down/Lights Off (If Applicable)
- e. Selector Knob - OFF
- f. Aux Pump - ON
- g. Cargo Ramp - LOWERED upon clearance from Pilot

WARNING

Lowering the ramp will increase aerodynamic drag significantly. Ensure a safe altitude and airspeed can be maintained prior to lowering the ramp.

- h. TUBES IN Button - Depress
 - i. Cargo Ramp - UP
 - j. Aft Cargo Door - CLOSED
 - k. Aux Pump - OFF
 - l. MAIN POWER Button - Depress/OFF
 - m. Circuit Breaker - OFF
 - n. Air Control Supply Valve - CLOSED
4. **"EMERGENCY DROP CHECKLIST COMPLETE"**
(LM, E)

EMERGENCY DROP PROCEDURES
(Aft Cargo Door Closed and Tubes Retracted)

NOTE

This procedure assumes normal electrical and pneumatic power is available to the MAFFS units.

- 1. Pressurization - **"EMERGENCY DEPRESSURIZE"** (E)

2. Ramp and Door - "**CLEARED TO OPEN**" (P)

WARNING

Lowering the ramp will increase aerodynamic drag significantly. Ensure a safe altitude and airspeed can be maintained prior to lowering the ramp.

3. Aux Pump - ON (LM)

NOTE

The aft cargo door and ramp will be operated by the LM from the rear of the aircraft.

4. Aft Cargo Door - OPEN (LM)
5. Cargo Ramp - LOWERED (LM)
6. Air Control Supply Valve - Checked OPEN (150 PSI) (LM)
7. TUBES OUT Button - Depress (LM)
8. Left and Right Tubes - Out and Locked (LM)
9. Emergency Drop - "**CLEARED TO DROP**" (P)

WARNING: Stand clear of the discharge valve actuator.

10. EMERGENCY DROP Button - Depress (LM)
11. Status of Load - "**LOAD CLEAR**" (State Condition) (LM)

WARNING: Stand clear of discharge valve actuator.

NOTE

Actions a through l will be accomplished by the LM.

- a. Selector Knob - CLOSE DROP
- b. CLOSE DROP Button - Depress and Hold until the Drop Valves Close (If Applicable)
- c. Selector Knob - CLOSE ARM and Depress CLOSE ARM Button
- d. Tank Arm Switches - All Down/Lights Off (If Applicable)

- e. Selector Knob - OFF
 - f. TUBES IN Button - Depress
 - g. Cargo Ramp - UP
 - h. Aft Cargo Door - CLOSED
 - i. Aux Pump - OFF
 - j. MAIN POWER Button - Depress/OFF
 - k. Circuit Breaker - OFF
 - l. Air Control Supply Valve - CLOSED
12. **"EMERGENCY DROP CHECKLIST COMPLETE"**
(LM, E)

EMERGENCY DROP WITHOUT ELECTRICAL POWER
(Aft Cargo Door Closed and Tubes Retracted)

- 1. Pressurization - **"EMERGENCY DEPRESSURIZE"** (E)
- 2. Ramp and Door - **"CLEARED TO OPEN"** (P)

WARNING

Opening the ramp and door will increase aerodynamic drag significantly. Ensure a safe altitude and airspeed can be maintained prior to lowering the ramp.

- 3. Aux Pump - ON (LM)

NOTE

The aft cargo ramp will be operated by the LM from the rear of the aircraft.

- 4. Aft Cargo Door - OPEN (LM)
- 5. Cargo Ramp - LOWERED (LM)
- 6. Emergency Drop - **"CLEARED TO DROP"** (P)

WARNING: Stand clear of discharge valve actuator.

NOTE

Action a through c must be accomplished by the LM to complete the drop.

- a. Air Control Supply Valve - Checked OPEN (150 PSI)
 - b. Extend Nozzles Manually by Depressing OUT Button (B) on the Solenoid Located on the Ramp Pallet.
 - c. Retardant - To Release Retardant, Depress OPEN (B) Control Button on Solenoid Located on Control Pallet (Retardant will gravity drain)
7. Status of Load - **"LOAD CLEAR"** (State Condition) (LM)

WARNING: Stand clear of discharge valve actuator.

NOTE

Actions a through f will be accomplished by the LM.

- a. Close Drop Valve - Depress CLOSE (A) Control Button on Control Pallet.
 - b. Nozzles - Retract Nozzles by Depressing IN Button (A) on Ramp Pallet.
 - c. Cargo Ramp - UP
 - d. Aft Cargo Door - CLOSED
 - e. Aux Pump - OFF
 - f. Air Control Supply Valve - CLOSED
8. **"EMERGENCY DROP CHECKLIST COMPLETE"**
(LM, E)

EMERGENCY DROP WITHOUT PNEUMATIC POWER
(Aft Cargo Door Closed & Tubes Retracted)

1. Pressurization - **"EMERGENCY DEPRESSURIZE"** (E)

2. Ramp and Door - “**CLEARED TO OPEN**” (P)

WARNING

Opening the ramp and door will increase aerodynamic drag significantly. Ensure a safe altitude and airspeed can be maintained prior to lowering the ramp.

3. Aux Pump - ON (LM)

NOTE

The aft cargo ramp will be operated by the LM from the rear of the aircraft.

4. Aft Cargo Door - OPEN (LM)
5. Cargo Ramp - LOWERED (LM)

WARNING

Since an air charge of 150 PSI may be stored in the line, exercise extreme caution while disconnecting.

WARNING

Stand clear of discharge valve actuator.

NOTE

Actions a through e must be accomplished by the LM to complete the drop.

- a. Air Line to Ramp Pallet - Disconnected
- b. Tubes – Manually Push Each Tube to the OUT Position
- c. Emergency Selector Valves - MANUAL
- d. Emergency Air Cylinder Valve - OPEN
- e. Retardant - Allow to Gravity Drain

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- 6. Status of Load - **"LOAD CLEAR"** (State Condition) (LM)
- 7. Cargo Ramp - UP (LM)

CAUTION

Because of the inability to retract the tubes, the cargo door must not be closed.

- 8. Aux Pump - OFF (LM)
- 9. **"EMERGENCY DROP CHECKLIST COMPLETE"**
LM, E)

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