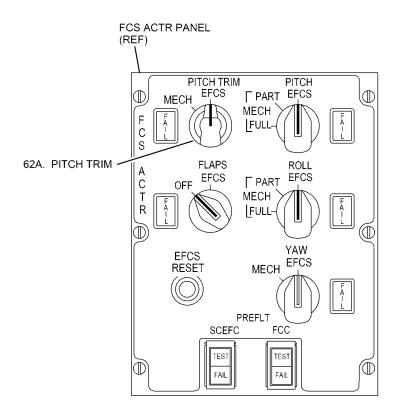


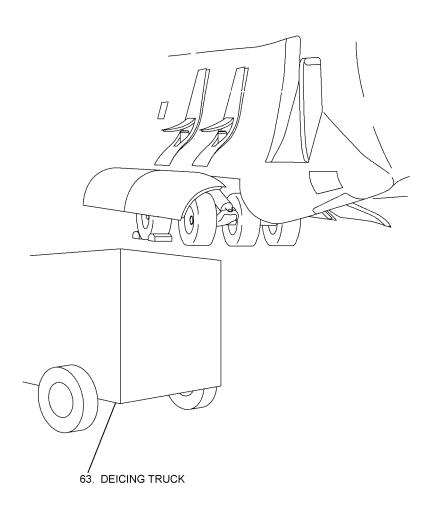
ICN-88277-G1051168-001-01

62A. (A) Remove warning tag from **PITCH TRIM** switch on **FSC ACTR** panel.



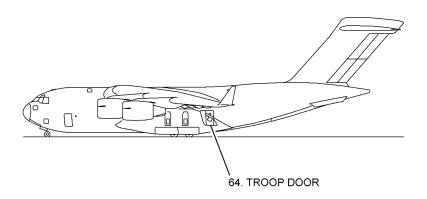
ICN-88277-G1051149-001-01

63. (B,C) Remove deicing truck from area.



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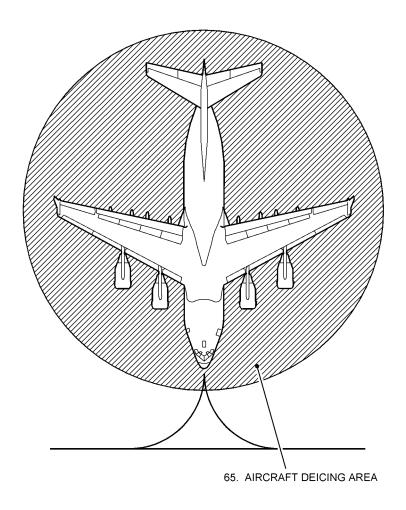
64. (C) Close troop door.



ICN-88277-G1051084-004-01

#### **NOTE**

- Supervisor shall inform designated aircrew or ground crew member that deicing task is complete.
- Clean up of any deicing fluid inside aircraft shall be accomplished at earliest opportunity.
- 65. (A) Ensure aircraft deicing area is free from equipment, obstructions, and any foreign objects.



ICN-88277-G1051085-004-01

# 01-6. SNOW AND ICE REMOVAL FROM HORIZONTAL STABILIZER WHEN HIGH REACH PLATFORM AND PORTABLE DEICING KIT NOT AVAILABLE.

### WARNING

This procedure does not replace snow and ice removal tasks 01-1, 01-3, or 01-5. It is intended to be used at airfields that do not possess high reach platform and portable deicing kit and shall not be used for routine deicing. Failure to comply may cause injury to personnel or damage to aircraft or equipment.

#### **NOTE**

Sufficient lighting shall be present for adequate coverage and visibility.

- 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.

# WARNING

Positive communication shall be established between team members prior to and during the snow and ice removal procedure. Failure to comply may cause injury to personnel and damage to aircraft.

#### **NOTE**

External or auxiliary power unit electrical power may be used to establish communications with the designated aircrew or ground crew member on board the aircraft.

3. Perform maintenance interphone operation (23-41-02, task 02-3).

10-51-01-6 2-198/(2-199 blank)

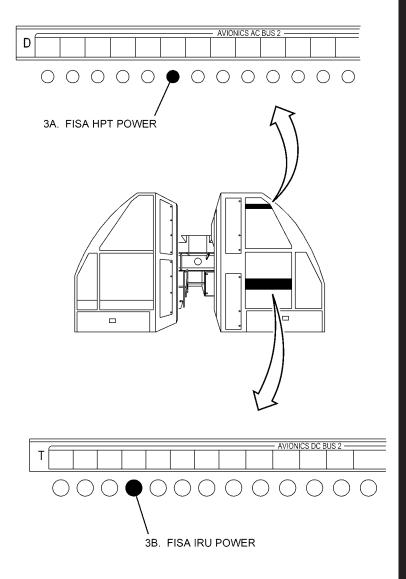
## WARNING

Circuit breakers for the Fixed Installation Satellite Antenna (FISA) and Ka-Band Fuselage Mount Antenna (Ka FMA) aircraft equipped systems shall be opened prior to deicing to prevent Radio Frequency (RF) transmission of high intensity electromagnetic radiation. Failure to comply may cause injury to personnel.

#### NOTE

Steps 3A and 3B are only applicable to FISA equipped aircraft.

- 3A. (A) Open **FISA HPT POWER** circuit breaker on EPC, row **D**, column **45**, and attach warning tag.
- 3B. (A) Open **FISA IRU POWER** circuit breaker on EPC, row **T**, column **43**, and attach warning tag.

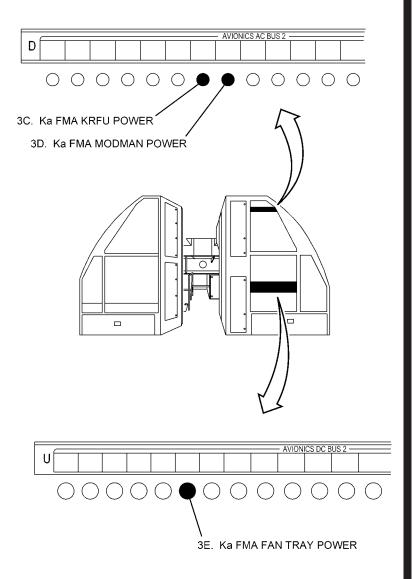


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#### **NOTE**

Steps 3C, 3D and 3E are only applicable to Ka FMA equipped aircraft.

- (A) Open Ka FMA KRFU POWER circuit breaker on EPC, row D, column 46, and attach warning tag.
- 3D. (A) Open **Ka FMA MODMAN POWER** circuit breaker on EPC, row **D**, column **47**, and attach warning tag.
- 3E. (A) Open **Ka FMA FAN TRAY POWER** circuit breaker on EPC, row **U**, column **45**, and attach warning tag.

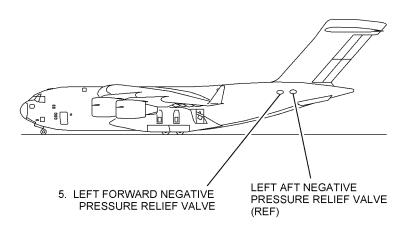


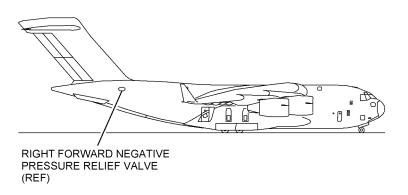
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#### NOTE

During deicing procedures, ensure horizontal stabilizer trim indicator **STAB TRIM** is in the 4 degrees nose down position (leading edge of stabilizer 4 degrees up) to enhance proper drainage of deicing fluids and help prevent trapped fluids. When deicing maintenance task is completed, leaving the horizontal stabilizer trim indicator **STAB TRIM** in the 4 degrees nose down position enhances proper drainage of critical flight control surfaces.

- 4. Perform horizontal stabilizer operation (27-40-02).
- 5. (A,B,C) Observe and avoid application of deicing fluid to negative pressure relief valves.





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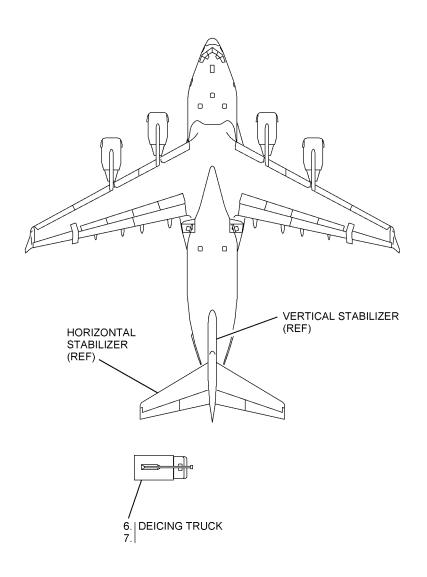
# WARNING

Supervisor for deicing truck shall be in position prior to movement of truck towards aircraft. Supervisor shall assist truck driver and spraying unit operator in maintaining adequate clearance from aircraft structure for both truck and anti-icing boom. Failure to comply may cause injury to personnel and damage to aircraft and equipment.

(A,B,C) Position deicing truck left and aft of left horizontal and vertical stabilizer.

#### **NOTE**

- Hot mix deicing fluid shall be directed in an upward angle, arching onto left upper horizontal stabilizer surface and leading edges.
- Allow for proper drainage to prevent trapped fluids.
- 7. (C) Using deicing truck, apply hot mix deicing fluid onto left upper horizontal stabilizer surface and leading edge.
  - Horizontal stabilizer and leading edge surfaces are completely free of snow, ice, and frozen contaminants.

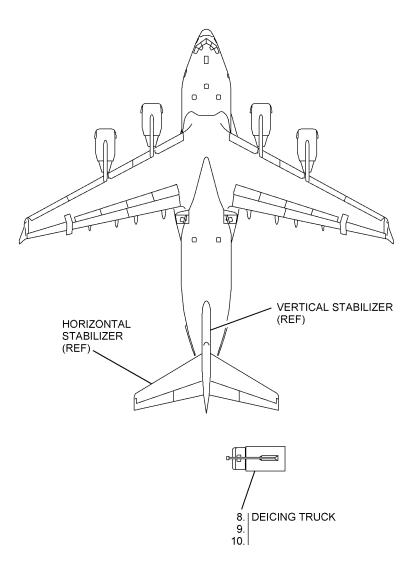


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 (A,B,C) Reposition deicing truck right and aft of right horizontal and vertical stabilizer.

#### **NOTE**

- Hot mix deicing fluid shall be directed in an upward angle, arching onto right upper horizontal stabilizer surface and leading edges.
- Allow for proper drainage to prevent trapped fluids.
- 9. (C) Using deicing truck, apply hot mix deicing fluid to right upper horizontal stabilizer surface and leading edge.
  - Horizontal stabilizer and leading edge surfaces are completely free of snow, ice, and frozen contaminants.
- 10. (A,B,C) Remove deicing truck from aircraft area.



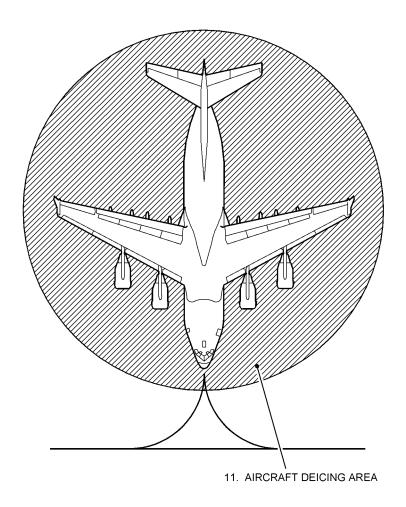
ICN-88277-G1051133-001-01

- 11. (A) Ensure aircraft deicing area is free from equipment, obstructions, and any foreign objects. Inform designated aircrew or ground crew member on the aircraft that the aircraft is clear.
- 12. Perform snow and ice removal inspection of horizontal stabilizer (task 01-7).

#### **NOTE**

Supervisor shall inform designated aircrew or ground crew member that the deicing task is complete.

13. Perform maintenance interphone shutdown (23-41-02, task 02-4).



ICN-88277-G1051134-001-01

# 01-7. SNOW AND ICE INSPECTION OF HORIZONTAL STABILIZER.

#### NOTE

- Perform inspection task only on the request of the aircrew commander. This is normally an aircrew inspection IAW TO 1300i-1, though they may ask for assistance from maintenance/flying crew chief, in part or fully, for entering the vertical stabilizer and performing the inspection.
- When you're not confined space (non-permit) qualified and/or not qualified in determining a deiced stabilizer, inform the aircrew commander.
- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- Review task "General Maintenance Input Conditions" page for task specific safety conditions.

# WARNING

Positive communication shall be established between team members prior to and during the snow and ice removal procedure. Failure to comply may cause injury to personnel and damage to aircraft.

#### NOTE

External or auxiliary power unit electrical power may be used to establish communications with the designated aircrew or ground crew member on board the aircraft.

- 3. Perform maintenance interphone operation (23-41-02, task 02-3).
- 4. Enter vertical stabilizer (00-00-02, task 02-1).

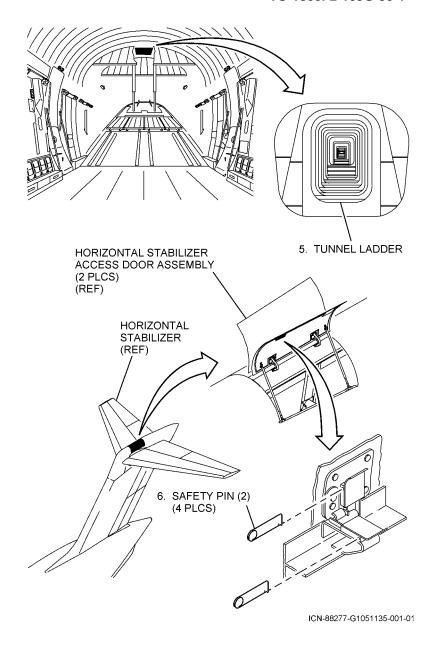
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5. Climb tunnel ladder to top of stabilizer.



Do not open horizontal stabilizer access doors when winds (including gusts) exceed 35 knots. Failure to comply may cause damage to aircraft.

6. Remove safety pins, unlatch, and open horizontal stabilizer access door assemblies (352BLD) and (352CRD).



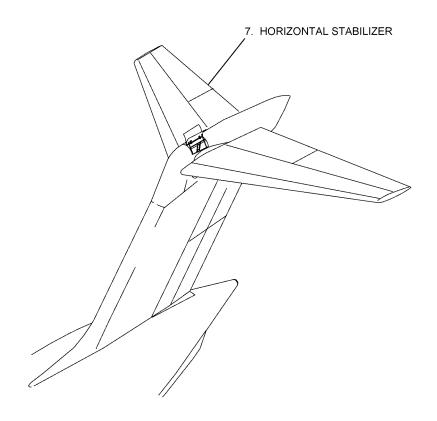
# WARNING

- Once opened, do not attempt to lean out or exit the access doors for a tactile check of the horizontal stabilizer. This inspection is only a visual check from within the vertical stabilizer. Failure to comply may cause serious injury or death to personnel.
- Any frozen contamination remaining on horizontal stabilizer will introduce unknown aerodynamic characteristics, ensure horizontal stabilizer is clean. Failure to comply may cause death or injury to personnel and damage to aircraft.

#### **NOTE**

- It is difficult during night operations, inclement weather, and conditions of poor lighting to visually determine the presence of ice. Sufficient lighting must be present to illuminate horizontal stabilizer for adequate inspection.
- Clear ice is extremely difficult to detect visually. Exercise due diligence during inspection.
- 7. Visually inspect horizontal stabilizer for ice.
  - No edges of ice deposits are observed.
  - No deposits of ice, snow or frozen contamination are observed.

SPECIAL INSTRUCTION. When unable to confidently determine absence of ice on horizontal stabilizer, repeat snow and ice removal from horizontal stabilizer when high reach platform and portable deicing kit not available (task 01-6).

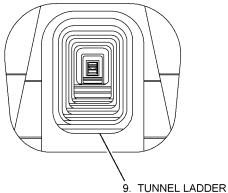


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# WARNING

When repeated deicing of the horizontal stabilizer is required, steps 8 and 9 shall be accomplished each time prior to another deicing. Failure to comply may cause death to personnel or damage to aircraft from deicing fluid entering the vertical stabilizer.

- 8. Close and latch horizontal stabilizer access door assemblies (352BLD) and (352CRD); install safety pins.
- 9. Climb down tunnel ladder.
- 10. Exit vertical stabilizer (00-00-02, task 02-8).
- 11. Perform maintenance interphone shutdown (23-41-02, task 02-4).



8. HORIZONTAL STABILIZER
ACCESS DOOR ASSEMBLY
(2 PLCS)

SAFETY PIN (2)
(4 PLCS)
(REF)

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Task

# ANTI-ICING (10-51-02)

# **GENERAL MAINTENANCE INPUT CONDITIONS:**

Applicability:

1300i-2-27JG-40-1

All	All
Additional information:	
Accomplishment of this procedure shall be followed in exact step-by-step CHECKLIST sequence to prevent damage to equipment or injury to personnel.  This procedure consists of the following tasks:  02-1. Anti-icing using calavar/reachall.  02-2. Anti-icing using ER2875.	Task All
02-3. Anti-icing horizontal stabilizer using deicing hose kit.	To als
NOTE	Task
<ul> <li>This task is typical for preventing accumulations of snow, frost, slush, and/or ice on clean aircraft surfaces.</li> </ul>	All
• When using multiple vehicles for deicing/anti-icing task, the task supervisor will coordinate multiple vehicle movement to ensure the safety of the aircraft and vehicles. Refer to paragraph 1-4 for optional anti-icing vehicle path.	All
Additional data:	Task
TO 1300i-2-23GS-00-1-1	All
TO 1300i-2-23JG-40-1 TO	All

All

	Task
TO 35E17-6-41	02-2
TO 42C-1-2	All
Personnel recommended:	Task
Five	02-1
Person (A) supervisor.	
Person (B) truck maintenance platform operator.	
Person (C) deicing boom/spray unit operator.	
Person (D) spotter/marshaller.	
Person (E) Calavar/Reachall operator.	
Three	02-2, 02-3
Person (A) supervisor/(spotter).	
Person (B) deicing truck operator.	
Person (C) deicing boom/spray unit operator.	
Safety conditions:	
	Task

# WARNING

 When hydraulic power is applied, communication between the anti-icing ground crew and designated aircrew or ground crew member on the aircraft shall be maintained at all times during this procedure.
 Failure to comply may cause injury to personnel and damage to aircraft and equipment. All

Task

A11

# WARNING - Continued

 Communication between anti-icing supervisor and the vehicle driver shall be maintained at all times during this procedure. Failure to comply may cause injury to personnel or damage to aircraft and equipment.

• Communication between deicing vehicle driver and boom operator shall be maintained at all times during this procedure. Failure to comply may cause injury to personnel or damage to aircraft and

 All aircraft surfaces shall be clean of ice and snow prior to the application of anti-icing fluids. When anti-icing is required due to freezing precipitation, the anti-icing operation shall occur within three minutes of completion of the deicing operation. The three minute time between deicing and anti-icing is critical to ensuring there is no potential for the reformation of ice. Failure to comply may cause injury to personnel and damage to aircraft.

equipment.

AMS 1428 Type II/IV anti-icing fluids are toxic.
Whenever possible, all personnel shall stay on the upwind side of aircraft during fluid application.
Safety equipment shall be worn by all personnel exposed to the anti-icing fluid during the application procedure. Contact with skin and eyes shall be avoided. When anti-icing fluid comes in contact with skin or eyes, flush with clean water. When irritation occurs, seek immediate medical aid. Failure to comply may cause injury to personnel.

A11

A11

**Task** 

# WARNING - Continued

 Personnel shall not attempt to approach or open crew door until approval has been received from aircraft crew. Differential cabin pressure may cause crew door to open with increased pressure. Failure to comply may cause injury to personnel or damage to aircraft and equipment. All

 Never apply AMS 1428 Type II/IV fluid as an anti-icing fluid to an aircraft surface that has already been anti-iced. When re-application is required, the aircraft shall first be deiced with a hot deicing fluid mix before the anti-icing application. Failure to comply may cause unknown aerodynamics when aircraft is at takeoff speed resulting in injury to personnel and damage to aircraft and equipment. A11

 Surfaces shall be sprayed symmetrically. Whatever is done to one side, the identical process shall be done to the other side. Flight performance and safety may be compromised when this does not occur. Failure to comply may cause injury to personnel and damage to equipment.

A11

 Do not apply anti-icing fluid forward of cockpit window. Anti-icing fluid applied to any area forward of cockpit will shear during takeoff roll and may obstruct the pilots vision. Failure to comply may cause injury to personnel and damage to equipment.

A11

Task

02 - 2

A11

A11

A11

A11

A11

## WARNING - Continued

 Do not extend ER2875 deicing boom above 42 feet anytime winds exceed 25 MPH. Failure to comply may cause injury to personnel and damage to aircraft and equipment.

# CAUTION

All doors and hatches shall be closed prior to beginning anti-icing procedures. Failure to comply may cause damage to aircraft and equipment.

#### **NOTE**

- When visible precipitation is present or predicted to occur within the time the aircraft is scheduled to depart, the aircraft shall be deiced prior to being anti-iced.
- With a clean aircraft surface, anti-icing may be accomplished in preparation for inclement weather, especially frosting conditions.
- Anti-icing is most effective when applied in a fan pattern at 50 to 60 psi and 20 to 25 gpm.
- Anti-icing fluid is a cold mix and is accomplished by applying a sufficient amount of fluid to completely coat aircraft surfaces with a thin film approximately 1/32 to 1/16 inch (1 to 2 mm) for AMS 1428 Type II and 1/16 to 1/8 inch (2 to 3 mm) for AMS 1428 Type IV.
- Personnel shall be familiar with TO 42C-1-2 prior to performing the maintenance procedures contained in this manual.

NOTE - Continued	Task
• The horizontal stabilizer upper surface and leading edge shall be the last surfaces to be anti-iced.	All
• Personnel shall be familiar with TO 35E17-6-41 prior to operating the ER2875 and qualified for the task prior to performing maintenance procedures in this manual.	02-2

## **Support equipment:**

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Adapter Set, Deicing Hose	17G010103-1		1	02-1
Calavar (Primary)	125S-USAF		AR	02-1
Reachall (Alternate)	AP120HMHTG		AR	02-1
Deicing Kit, Portable-Horizontal Stabilizer	17G010119-1			
Combination Nozzle	BGH-HT120-PD		1	02-3
Hose Assembly	P2930101161616-1800		1	02-3
Hose Assembly, Nonmetallic-Deicer	17G010097-1		1	02-1
Truck, Deicing	ER2875		AR	02-2
Truck, Deicing	GL1800		AR	02-1
Truck, Deicing	TM1800		AR	02-1

## Supplies:

3	<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
	Fluid, Aircraft, Anti-icing		AMS 1428, Type II	AR	All
	Fluid, Aircraft, Anti-icing		AMS 1428, Type IV	AR	All
	Tag, Warning			6	02-3

TO 1300i-2-10JG-50-1

#### 02-1. ANTI-ICING USING CALAVAR/REACHALL.

- 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.

#### **NOTE**

During anti-icing procedures the nose landing gear window assembly may be opened to prevent the aircraft from slightly pressurizing when doors and windows are closed and avionics cooling fans are running.

3. (A) Loosen fasteners and open nose landing gear window assembly.

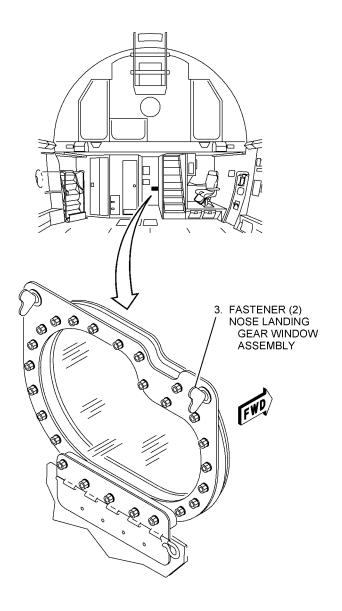
## WARNING

Positive communication shall be established between team members prior to and during the snow and ice removal procedure. Failure to comply may cause injury to personnel and damage to aircraft.

#### NOTE

External or auxiliary power unit electrical power may be used to establish communications with the designated aircrew or ground crew member on board the aircraft.

4. Perform maintenance interphone operation (23-41-02, task 02-3).



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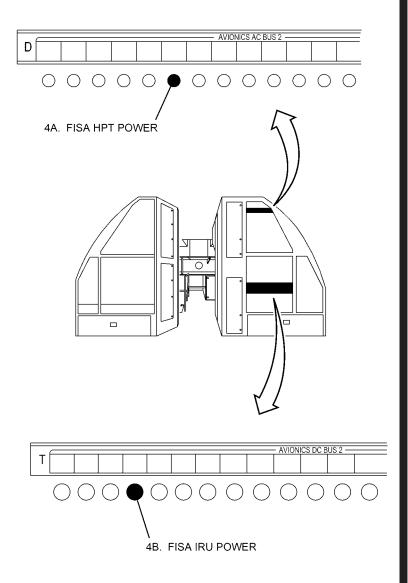
### WARNING

- Circuit breakers for the Fixed Installation Satellite Antenna (FISA) and Ka-Band Fuselage Mount Antenna (Ka FMA) aircraft equipped systems shall be opened prior to anti-icing to prevent Radio Frequency (RF) transmission of high intensity electromagnetic radiation. Failure to comply may cause injury to personnel.
- When designated personnel (aircrew or ground crew) are positioned to monitor the opened circuit breakers on the Electrical Power Center (EPC) during the entire anti-icing procedure, warning tags are not required, otherwise warning tags shall be installed when leaving the EPC area. Failure to comply may cause injury to personnel.

#### **NOTE**

Steps 4A and 4B are only applicable to FISA equipped aircraft.

- 4A. (A) Open **FISA HPT POWER** circuit breaker on EPC, row **D**, column **45**, and attach warning tag, as required.
- 4B. (A) Open **FISA IRU POWER** circuit breaker on EPC, row **T**, column **43**, and attach warning tag, as required.

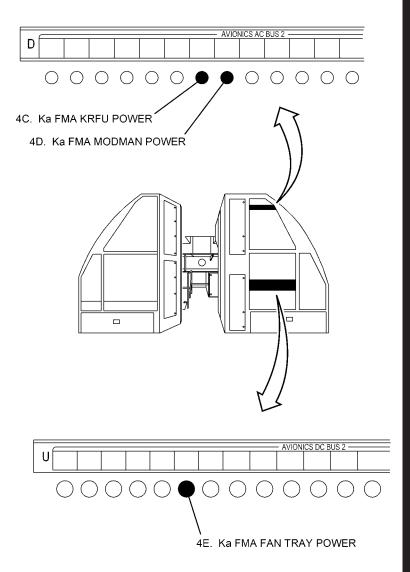


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#### **NOTE**

Steps 4C, 4D and 4E are only applicable to Ka FMA equipped aircraft.

- 4C. (A) Open Ka FMA KRFU POWER circuit breaker on EPC, row D, column 46, and attach warning tag, as required.
- 4D. (A) Open **Ka FMA MODMAN POWER** circuit breaker on EPC, row **D**, column **47**, and attach warning tag, as required.
- 4E. (A) Open **Ka FMA FAN TRAY POWER** circuit breaker on EPC, row **U**, column **45**, and attach warning tag, as required.

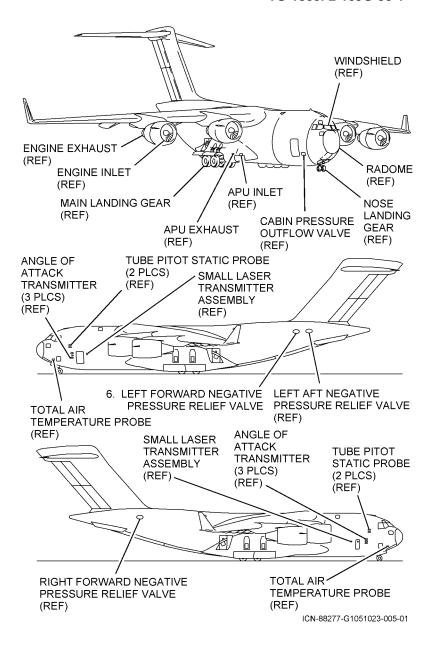


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#### **NOTE**

During anti-icing procedures, ensure horizontal stabilizer is in the 4 degrees nose down position (leading edge of stabilizer 4 degrees up) to enhance proper drainage of anti-icing fluids and help prevent trapped fluids. When anti-icing maintenance task is completed, leaving the horizontal stabilizer in the 4 degrees nose down position enhances proper drainage of critical flight control surfaces.

- 5. Perform horizontal stabilizer operation (27-40-02).
- 6. (A,B,C,D) Observe and avoid application of anti-icing fluid to negative pressure relief valves, cabin pressure outflow valve, engine inlet and exhaust, APU inlet and exhaust, main landing gear, nose landing gear, tube pitot static probes, angle of attack transmitter, total air temperature probes, small laser transmitter assemblies, radome, and windshield areas.

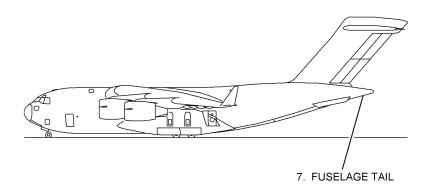


### WARNING

- When positioning Calavar/Reachall, a minimum of 30 feet shall be maintained between the fuselage tail and the Calavar/Reachall. Failure to comply may cause injury to personnel and damage to equipment.
- Allow sufficient clearance between deicing truck and the wing leading edge/engine nacelles to ensure safe truck movement from wing root area to wing tip as indicated in truck movement diagram. Failure to comply may cause injury to personnel and damage to aircraft and equipment.

#### **NOTE**

- The pattern of travel for movement of the deicing truck is critical to the safe and timely application of the anti-icing fluid. Use pattern indicated in this job guide for safest and most effective application of anti-icing fluid.
- When using multiple vehicles to anti-ice aircraft, refer to paragraph 1-4 for safe and effective application of anti-icing fluids.
- 7. (A,D) Position Calavar/Reachall directly behind fuselage tail.



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8. (A,B,C) Position deicing truck parallel to left leading edge near wing root area facing left wing tip to begin anti-icing procedure.

#### NOTE

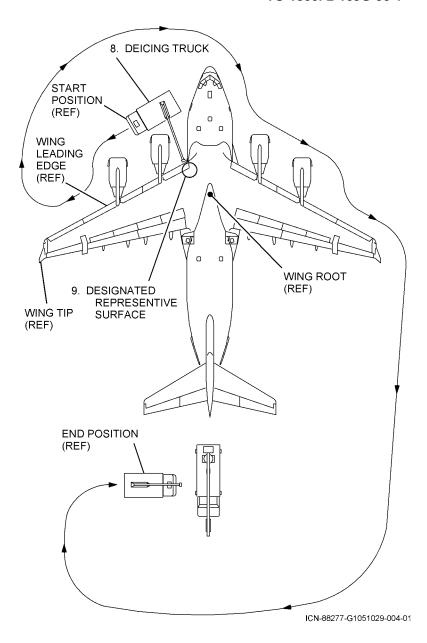
The designated representative surface for the C-17 aircraft is the left upper inboard leading edge wing root section next to the fuselage.

9. (A) Record start time for beginning of application of anti-icing fluid to designated representative surface.

#### **NOTE**

Holdover Time Elements are defined as follows:

- Element A Type of anti-icing fluid used.
- Element B Percentage of fluid/water mixture used.
- Element C Time the anti-icing procedure was started (local time).
- Element D Date (day, month, year).
- 10. (A) Provide designated aircrew or ground crew member of the aircraft Holdover Time Elements A, B, C, and D (TO 42C-1-2).



### WARNING

The upper wing surface and leading edge, horizontal stabilizer and leading edge, vertical stabilizer and leading edge, and rudder are critical lifting surfaces. Ensure complete coverage of these areas with the designated thickness of anti-icing fluid. Failure to comply may cause injury to personnel and damage to aircraft and equipment.

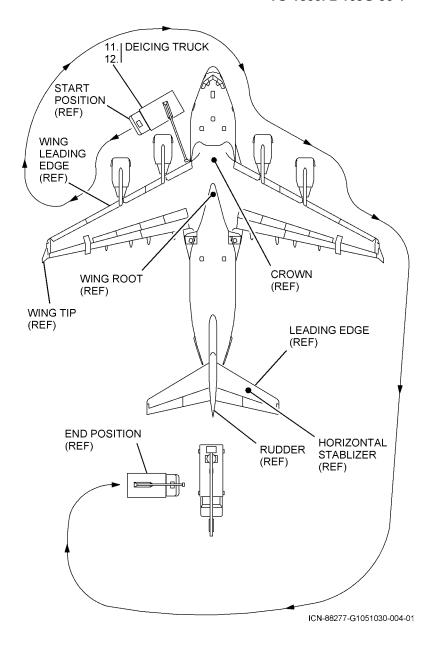
#### NOTE

Anti-icing fluid shall always be applied cold and at 100 percent strength (not diluted).

11. (C) Starting with the designated representative surface, apply a thin coat of anti-icing fluid with the deicing truck in a fan pattern across the designated area as follows:

FLUID TYPE	THICKNESS IN INCHES (MM)
II	1/32 - 1/16 (1 - 2)
IV	1/16 - 1/8 (2 - 3)

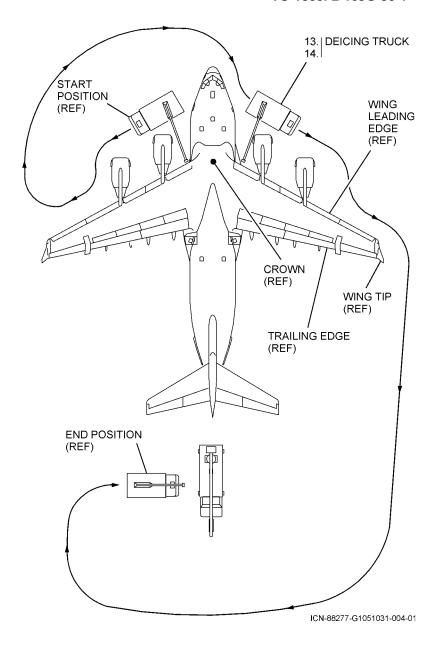
12. (C) Apply anti-icing fluid with the deicing truck to the remaining surface of the wing. Starting at the crown of the wing, allow fluid to flow in all directions. Continue applying fluid, sweeping toward the wing tip. Ensure upper wing surface and leading edge are completely covered with the designated thickness of anti-icing fluid.



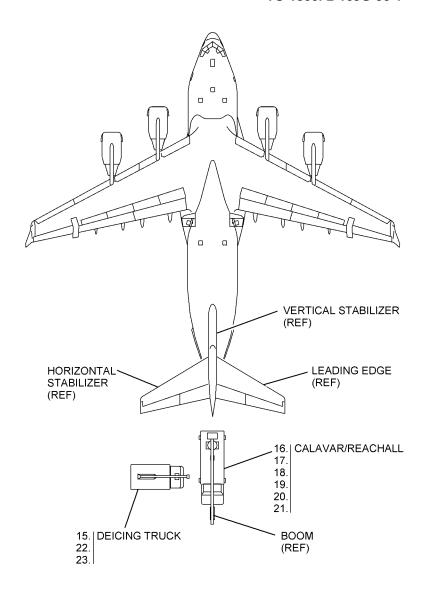
#### **NOTE**

When necessary to apply anti-icing fluid to left and right inboard trailing edge of wings, reposition deicing truck as required to apply fluids. Ensure spotter is in position for anti-icing these areas.

- 13. (A,B,C) Reposition deicing truck parallel to right leading edge of wing near wing root area facing wing tip.
- 14. (C) Apply anti-icing fluid to the wing surface. Starting at the crown of the wing, allow fluid to flow in all directions. Continue applying fluid, sweeping toward the wing tip. Ensure wing surface and leading edge are completely coverage with the designated thickness of anti-icing fluid.

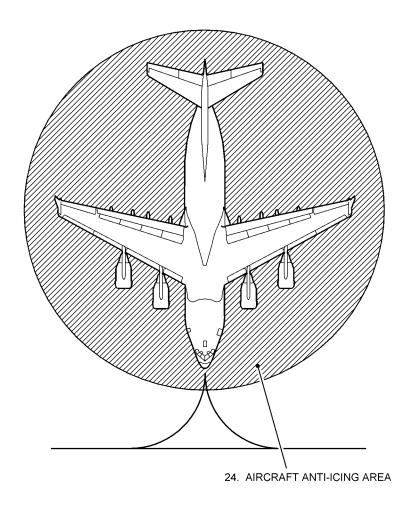


- 15. (Calavar) (A,B,C,D) Reposition deicing truck perpendicular to Calavar and connect deicing hose assembly between deicing truck basket and quick disconnect adapter on Calavar.
- 15. (Reachall) (A,B,C,D) Reposition deicing truck perpendicular to Reachall and connect deicing hose assembly and deicing hose adapter set between deicing truck basket and quick disconnect adapter on Reachall.
- 16. (D) Using Calavar/Reachall, apply anti-icing fluid to upper surface and leading edge of horizontal stabilizer.
- 17. (A,B,C,D) Reposition Calavar/Reachall boom for effective anti-icing of the left vertical stabilizer surface, vertical stabilizer leading edge, and rudder.
- 18. (D) Using Calavar/Reachall, apply anti-icing fluid to left vertical stabilizer surface, vertical stabilizer leading edge, and rudder. Start at the uppermost areas and work down and aft.
- 19. (A,B,C,D) Reposition Calavar/Reachall boom for effective anti-icing of the right vertical stabilizer surface, vertical stabilizer leading edge, and rudder.
- (D) Using Calavar/Reachall, apply anti-icing fluid to right vertical stabilizer surface, vertical stabilizer leading edge, and rudder. Start at the uppermost areas and work down and aft.
- 21. (A,B,C,D) Lower Calavar/Reachall boom and stow.
- 22. (Calavar) (A,B,C,D) Disconnect deicing hose assembly between deicing truck and quick disconnect adapter on Calavar.
- 22. (Reachall) (A,B,C,D) Disconnect deicing hose assembly and deicing hose adapter set between deicing truck and quick disconnect adapter on Reachall.
- 23. (A,B,D) Remove deicing truck and Calavar/Reachall from aircraft area.



ICN-88277-G1051032-004-01

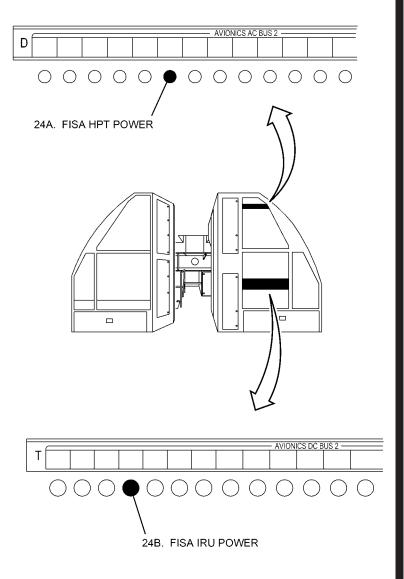
24. (A) Ensure aircraft anti-icing area is free from equipment, obstructions, and foreign objects. Inform designated aircrew or ground crew member on the aircraft that the aircraft is clear.



ICN-88277-G1051027-004-01

#### **NOTE**

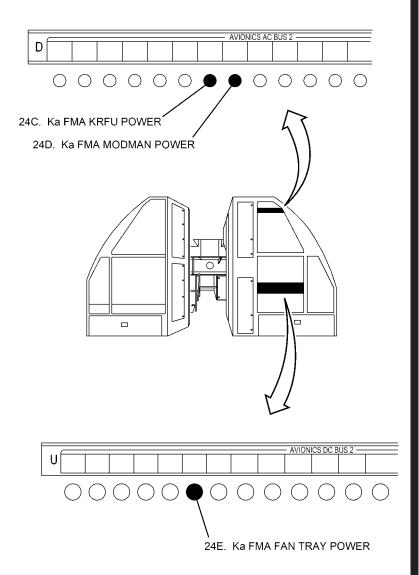
- Ensure an information statement is entered in the AFTO Form/IMT 781A that the FISA circuit breakers are opened and collared to disable the system for non-FISA operational missions.
- The FISA HPT POWER and FISA IRU POWER circuit breakers will remain open and collared for deactivation of the system when not in use. When the reactivation of the system is required, refer to TO 1300i-2-23GS-00-1-1.
- Steps 24A and 24B are only applicable to FISA equipped aircraft.
- 24A. (A) Remove warning tag, as required, from **FISA HPT POWER** circuit breaker on EPC, row **D**, column **45**, and install circuit breaker collar.
- 24B. (A) Remove warning tag, as required, from **FISA IRU POWER** circuit breaker on EPC, row **T**, column **43**, and install circuit breaker collar.



ICN-88277-G1051173-001-01

#### **NOTE**

- Ensure an information statement is entered in the AFTO Form/IMT 781A that the Ka FMA circuit breakers are opened and collared to disable the system for non-Ka FMA operational missions.
- The Ka FMA KRFU POWER, Ka FMA MODMAN POWER and Ka FMA FAN TRAY POWER circuit breakers will remain open and collared for deactivation of the system when not in use. When the reactivation of the system is required, refer to TO 1300i-2-23GS-00-1-1.
- Steps 24C, 24D and 24E are only applicable to Ka FMA equipped aircraft.
- 24C. (A) Remove warning tag, as required, from **Ka FMA KRFU POWER** circuit breaker on EPC, row **D**, column **46**, and install circuit breaker collar.
- 24D. (A) Remove warning tag, as required, from **Ka FMA MODMAN POWER** circuit breaker on EPC, row **D**, column **47**, and install circuit breaker collar.
- 24E. (A) Remove warning tag, as required, from **Ka FMA FAN TRAY POWER** circuit breaker on EPC, row U, column **45**, and install circuit breaker collar.

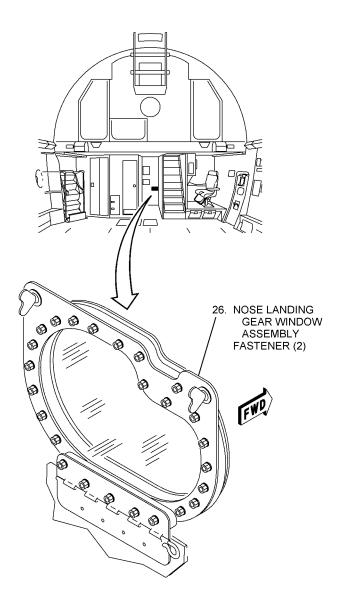


ICN-88277-G1051174-001-01

#### **NOTE**

Supervisor shall inform designated aircrew or ground crew member that anti-icing task is complete.

- 25. Perform maintenance interphone shutdown (23-41-02, task 02-4).
- 26. (A) Close nose landing gear window assembly when opened during anti-icing procedures and tighten fasteners.



ICN-88277-G1051146-002-01

#### 02-2. ANTI-ICING USING ER2875.

- 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.

#### **NOTE**

During anti-icing procedures the nose landing gear window assembly may be opened to prevent the aircraft from slightly pressurizing when doors and windows are closed and avionics cooling fans are running.

3. (A) Loosen fasteners and open nose landing gear window assembly.

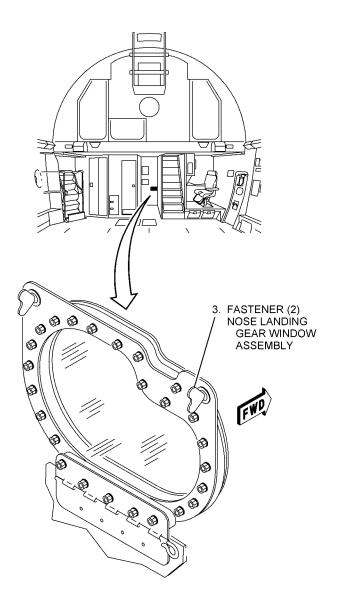
## WARNING

Positive communication shall be established between team members prior to and during the snow and ice removal procedure. Failure to comply may cause injury to personnel and damage to aircraft.

#### **NOTE**

External or auxiliary power unit electrical power may be used to establish communications with the designated aircrew or ground crew member on board the aircraft.

4. Perform maintenance interphone operation (23-41-02, task 02-3).



ICN-88277-G1051147-002-01

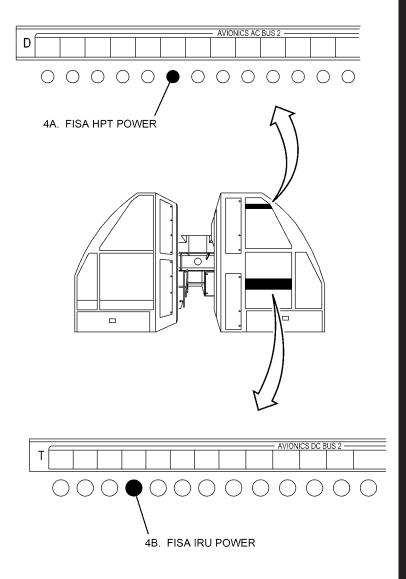
### WARNING

- Circuit breakers for the Fixed Installation Satellite Antenna (FISA) and Ka-Band Fuselage Mount Antenna (Ka FMA) aircraft equipped systems shall be opened prior to anti-icing to prevent Radio Frequency (RF) transmission of high intensity electromagnetic radiation. Failure to comply may cause injury to personnel.
- When designated personnel (aircrew or ground crew) are positioned to monitor the opened circuit breakers on the Electrical Power Center (EPC) during the entire anti-icing procedure, warning tags are not required, otherwise warning tags shall be installed when leaving the EPC area. Failure to comply may cause injury to personnel.

#### **NOTE**

Steps 4A and 4B are only applicable to FISA equipped aircraft.

- 4A. (A) Open **FISA HPT POWER** circuit breaker on EPC, row **D**, column **45**, and attach warning tag, as required.
- 4B. (A) Open **FISA IRU POWER** circuit breaker on EPC, row **T**, column **43**, and attach warning tag, as required.

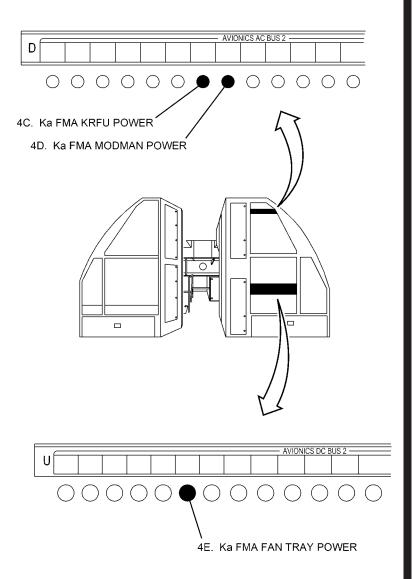


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#### **NOTE**

Steps 4C, 4D and 4E are only applicable to Ka FMA equipped aircraft.

- 4C. (A) Open Ka FMA KRFU POWER circuit breaker on EPC, row D, column 46, and attach warning tag, as required.
- 4D. (A) Open **Ka FMA MODMAN POWER** circuit breaker on EPC, row **D**, column **47**, and attach warning tag, as required.
- 4E. (A) Open **Ka FMA FAN TRAY POWER** circuit breaker on EPC, row **U**, column **45**, and attach warning tag, as required.

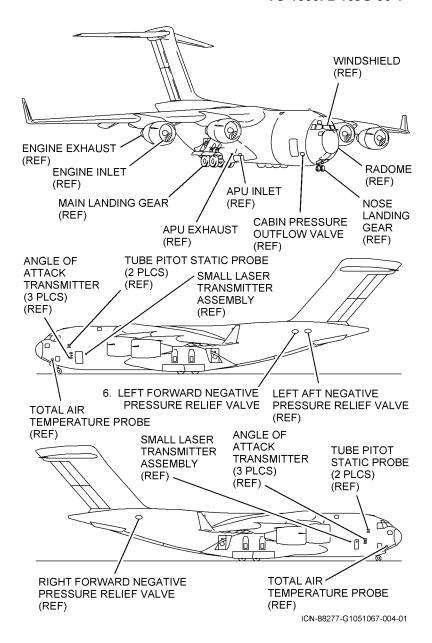


ICN-88277-G1051176-001-01

## **NOTE**

During anti-icing procedures, ensure horizontal stabilizer is in the 4 degrees nose down position (leading edge of stabilizer 4 degrees up) to enhance proper drainage of anti-icing fluids and help prevent trapped fluids. When anti-icing maintenance task is completed, leaving the horizontal stabilizer in the 4 degrees nose down position enhances proper drainage of critical flight control surfaces.

- 5. Perform horizontal stabilizer operation (27-40-02).
- 6. (A,B,C) Observe and avoid application of anti-icing fluid to negative pressure relief valves, cabin pressure outflow valve, engine inlet and exhaust, APU inlet and exhaust, main landing gear, nose landing gear, pitot static probes, angle of attack transmitter, total air temperature probes, small laser transmitter assemblies, radome, and windshield areas.

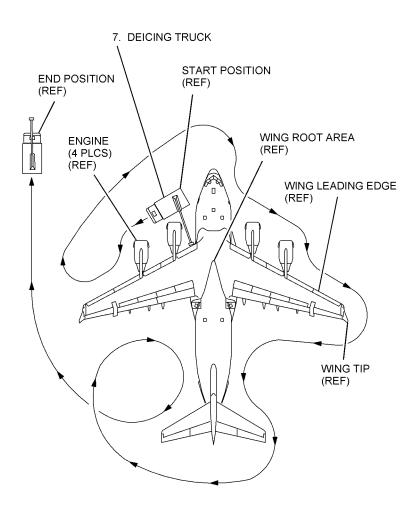


# WARNING

Allow sufficient clearance between deicing truck and the wing leading edge/engine nacelles to ensure safe truck movement toward wing root area as indicated in truck movement diagram. Failure to comply may cause injury to personnel and damage to aircraft and equipment.

# **NOTE**

- Experience has shown a buildup of ice/snow can/will stick to stabilizer pads. Ensure stabilizer pads are free of ice and snow prior to deployment.
- The pattern of travel for movement of the deicing truck is critical to the safe and timely application of the anti-icing fluid. Use pattern indicated in this job guide for safest and most effective application of anti-icing fluid.
- When using multiple vehicles to anti-ice aircraft, refer to paragraph 1-4 for safe and effective application of anti-icing fluids.
- 7. (A,B,C) Position deicing truck parallel to left leading edge near wing root area facing left wing tip to begin anti-icing procedures.



ICN-88277-G1051068-003-01

## **NOTE**

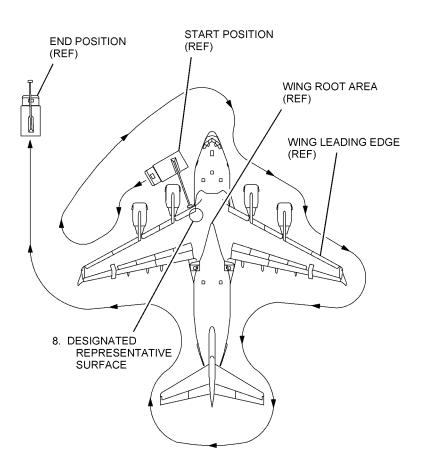
The designated representative surface for the C-17 aircraft is the left upper inboard leading edge wing root section next to the fuselage.

8. (A) Record start time for beginning of application of anti-icing fluid to designated representative surface.

## **NOTE**

Holdover Time Elements are defined as follows:

- Element A Type of anti-icing fluid used.
- Element B Percentage of fluid/water mixture used.
- Element C Time the anti-icing procedure was started (local time).
- Element D Date (day, month, year).
- 9. Document in AFTO form 781A an INFO NOTE with Holdover Time Elements A, B, C, and D (TO 42C-1-2).



ICN-88277-G1051069-003-01

# WARNING

The upper wing surface and leading edge, horizontal stabilizer and leading edge, vertical stabilizer and leading edge, and rudder are critical lifting surfaces. Ensure complete coverage of these areas with the designated thickness of anti-icing fluid. Failure to comply may cause injury to personnel and damage to aircraft and equipment.

## NOTE

Anti-icing fluid shall always be applied cold and at 100 percent strength (not diluted).

10. (C) Starting with the designated representative surface, apply a thin coat of anti-icing fluid with the deicing truck in a fan pattern across the designated area as follows:

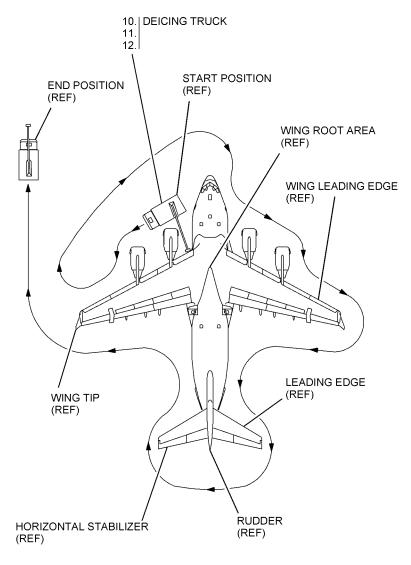
FLUID TYPE	THICKNESS IN INCHES (MM)
II	1/32 - 1/16 (1 - 2)
IV	1/16 - 1/8 (2 - 3)

11. (C) Apply anti-icing fluid with the deicing truck to the remaining wing surface. Starting at the crown of the wing, allow fluid to flow in all directions. Continue applying fluid, sweeping toward the wing tip. Ensure wing upper surface and leading edge are completely covered with the designated thickness of anti-icing fluid.

#### NOTE

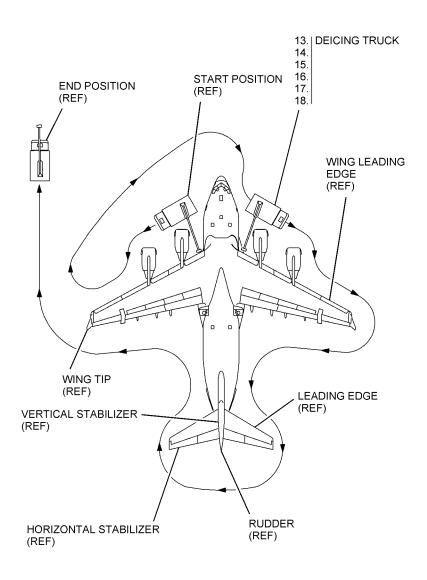
When necessary to apply anti-icing fluid to left and right inboard trailing edge of wings, reposition deicing truck as required to apply fluids. Ensure spotter is in position for anti-icing these areas.

12. (A,B,C) Reposition deicing truck parallel to right leading edge of wing near wing root area facing wing tip.



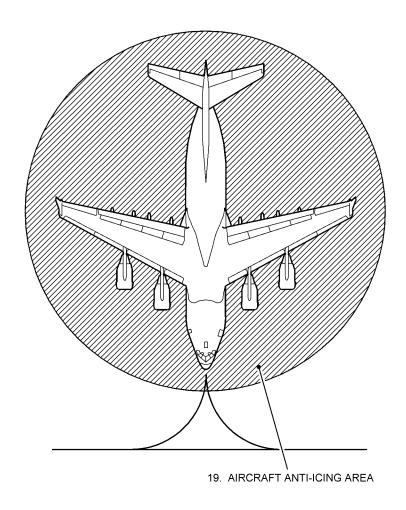
ICN-88277-G1051070-003-01

- 13. (C) Apply anti-icing fluid to the wing surface. Starting at the crown of the wing, allow fluid to flow in all directions. Continue applying fluid, sweeping toward the wing tip. Ensure wing surface and leading edge are completely coverage with the designated thickness of anti-icing fluid.
- 14. (A,B,C) Reposition deicing truck parallel to the right aft fuselage in front of the horizontal and vertical stabilizer surfaces and leading edges.
- 15. (C) Using deicing truck, apply anti-icing fluid to right upper horizontal stabilizer and leading edge, right vertical stabilizer surface, vertical stabilizer leading edge and rudder. Ensure complete coverage of all surfaces with the designated thickness of anti-icing fluid.
- 16. (A,B,C) Reposition deicing truck to the left aft fuselage in front of the horizontal and vertical stabilizer surfaces and leading edges.
- 17. (C) Using deicing truck, apply anti-icing fluid to left upper horizontal stabilizer and leading edge, left vertical stabilizer surface, vertical stabilizer leading edge and rudder. Ensure complete coverage of all surfaces with the designated thickness of anti-icing fluid.
- 18. (A,B,C) Remove deicing truck from aircraft area.



ICN-88277-G1051071-003-01

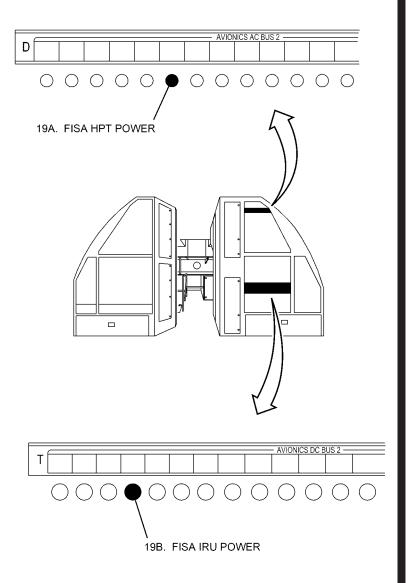
19. (A) Ensure aircraft anti-icing area is free from equipment, obstructions, and any foreign objects. Inform designated aircrew or ground crew member on board the aircraft that the aircraft is clear.



ICN-88277-G1051073-003-01

## **NOTE**

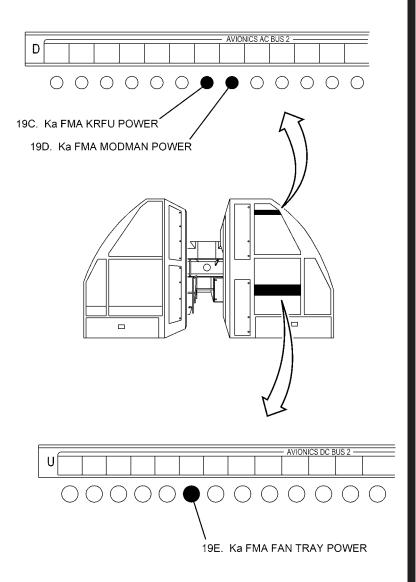
- Ensure an information statement is entered in the AFTO Form/IMT 781A that the FISA circuit breakers are opened and collared to disable the system for non-FISA operational missions.
- The FISA HPT POWER and FISA IRU POWER circuit breakers will remain open and collared for deactivation of the system when not in use. When the reactivation of the system is required, refer to TO 1300i-2-23GS-00-1-1.
- Steps 19A and 19B are only applicable to FISA equipped aircraft.
- 19A. (A) Remove warning tag, as required, from **FISA HPT POWER** circuit breaker on EPC, row **D**, column **45**, and install circuit breaker collar.
- 19B. (A) Remove warning tag, as required, from **FISA IRU POWER** circuit breaker on EPC, row **T**, column **43**, and install circuit breaker collar.



ICN-88277-G1051177-001-01

## **NOTE**

- Ensure an information statement is entered in the AFTO Form/IMT 781A that the Ka FMA circuit breakers are opened and collared to disable the system for non-Ka FMA operational missions.
- The Ka FMA KRFU POWER, Ka FMA MODMAN POWER and Ka FMA FAN TRAY POWER circuit breakers will remain open and collared for deactivation of the system when not in use. When the reactivation of the system is required, refer to TO 1300i-2-23GS-00-1-1.
- Steps 19C, 19D and 19E are only applicable to Ka FMA equipped aircraft.
- 19C. (A) Remove warning tag, as required, from Ka FMA KRFU POWER circuit breaker on EPC, row D, column 46, and install circuit breaker collar.
- 19D. (A) Remove warning tag, as required, from Ka FMA MODMAN POWER circuit breaker on EPC, row D, column 47, and install circuit breaker collar.
- 19E. (A) Remove warning tag, as required, from **Ka FMA FAN TRAY POWER** circuit breaker on EPC, row U, column **45**, and install circuit breaker collar.

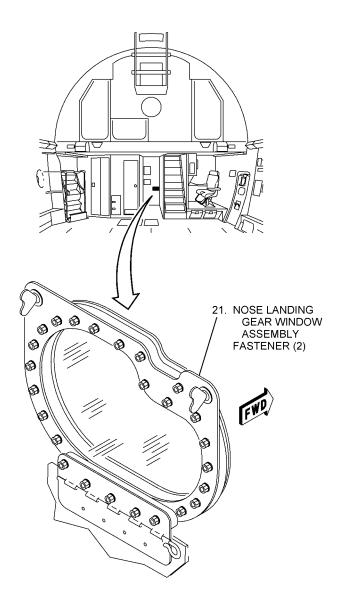


ICN-88277-G1051178-001-01

## **NOTE**

Supervisor shall inform designated aircrew or ground crew member that anti-icing task is complete.

- 20. Perform maintenance interphone shutdown (23-41-02, task 02-4).
- 21. (A) Close nose landing gear window assembly when opened during anti-icing procedures and tighten fasteners.



ICN-88277-G1051148-002-01

# 02-3. ANTI-ICING HORIZONTAL STABILIZER USING DEICING HOSE KIT.

# WARNING

- This procedure does not replace the anti-icing tasks described in 02-1 or 02-2. It is only intended to be used at airfields that do not possess high reach platform. Failure to comply may cause injury to personnel, damage to aircraft, or equipment.
- This procedure shall not be performed concurrent with aircraft refueling. Failure to comply may cause injury to personnel, damage to aircraft, or equipment.
- This procedure shall not be used with winds over 20 knots. Failure to comply may cause injury to personnel, damage to aircraft, or equipment.

# CAUTION

When using the Portable Horizontal Stabilizer Deicing Kit (PN 17G010119-1), anti-icing flow rate shall not exceed 25 gallons per minute at pressures not to exceed 60 psi. Failure to comply may cause damage to aircraft, or equipment.

## NOTE

- Sufficient lighting shall be present for adequate coverage and visibility.
- External or auxiliary power unit electrical power may be used to establish communication with the designated aircrew or ground crew member on board the aircraft.

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## **NOTE - Continued**

- Com Cord from troop door will be needed for T-Tail from cargo compartment.
- 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.

# WARNING

Positive communication shall be established between team members prior to and during the snow and ice removal procedure. Failure to comply may cause injury to personnel and damage to aircraft.

3. Perform maintenance interphone operation (23-41-02, task 02-3).

- 4. (C) Open troop door.
- 5. (B) Position deicing truck as required at left or right troop door.

WARNING

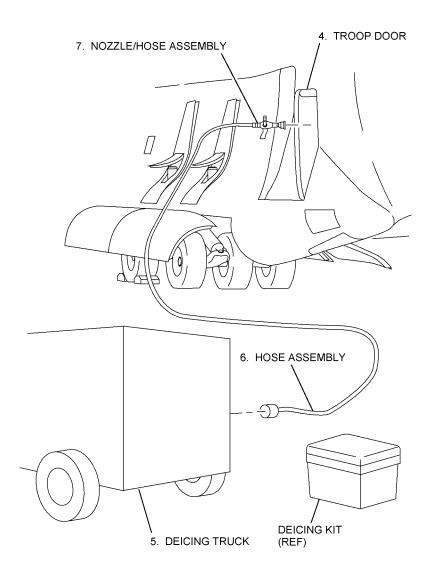
Full length of hose shall be visually inspected for worn, chafed, frayed, cut(s), ballooning, or other signs of wear prior to use. Failure to comply may cause injury to personnel or damage to aircraft or equipment.

6. (B,C) Remove hose assembly and nozzle assembly from deicing kit.



Ensure hose quick disconnect from deicing unit is located outside of aircraft.

7. (B) Place combination nozzle/hose assembly in cargo compartment.



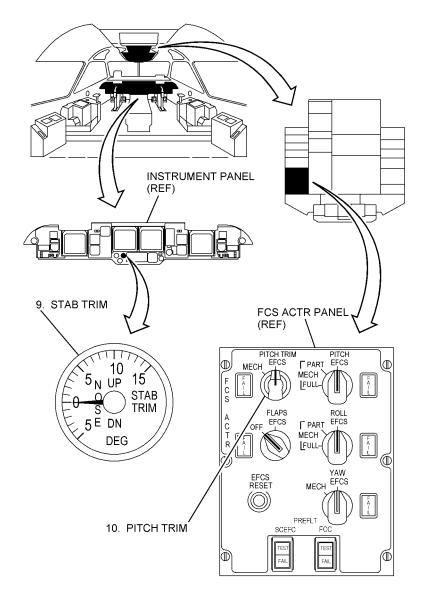
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- 8. Perform horizontal stabilizer operation (27-40-02).
- 9. (A) Ensure **STAB TRIM** indicator on instrument panel reads **0** degrees.
  - STAB TRIM indicator shall read 0 degrees.

# WARNING

Before entering horizontal stabilizer ensure **PITCH TRIM** switch on **FCS ACTR** panel is in the **MECH** position. Failure to comply may cause injury to personnel or damage to aircraft.

10. (A) Ensure **PITCH TRIM** switch on **FCS ACTR** panel is set to **MECH** and attach warning tag.



ICN-88277-G1051089-003-01

# WARNING

Ditching locks shall not be moved from outboard position while ladder is on mounting hooks. Failure to comply may cause injury or death to personnel and damage to aircraft.

- (B) Remove quick-release pins from cargo door ditching lock actuators.
- 12. (B) Activate left and right ditching pawls levers to lock cargo door in closed position.
- 13. (B) Install quick-release pins in cargo door ditching lock handles.