

## WEATHER RTA ASSEMBLY - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

### 1. General

- A. This section gives the procedures to remove and install the weather receiver/transmitter antenna (RTA) assembly and its flat plate antenna separately.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
34-42-01-000-801-A	WEATHER RECEIVER/TRANSMITTER ANTENNA (RTA) - REMOVAL	ALL
34-42-01-400-801-A	WEATHER RECEIVER/TRANSMITTER ANTENNA (RTA) - INSTALLATION	ALL
34-42-01-000-802-A	WEATHER RADAR FLAT PLATE ANTENNA - REMOVAL	ALL
34-42-01-400-802-A	WEATHER RADAR FLAT PLATE ANTENNA - INSTALLATION	ALL

TASK 34-42-01-000-801-A

EFFECTIVITY: ALL

## 2. WEATHER RECEIVER/TRANSMITTER ANTENNA (RTA) - REMOVAL

### A. General

- (1) This procedure gives the instructions to remove the weather receiver/transmitter antenna (RTA).

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-30-00/100	-

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
111		Radome

### D. Tools and Equipment

Not Applicable

### E. Auxiliary Items

Not Applicable

### F. Consumable Materials

Not Applicable

### G. Expandable Parts

Not Applicable

### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Forward fuselage I

### I. Preparation

#### SUBTASK 841-002-A

- (1) (Aircraft equipped with one weather radar controller) On the circuit breaker panel, open the RADAR circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) (Aircraft equipped with two weather radar controllers) On the circuit breaker panel, open the RADAR CONT 1 and RADAR CONT 2/RTA circuit breakers and attach DO-NOT-CLOSE tags to them.
- (3) Open the radome and lock it in a safe position to get access to the weather RTA (AMM MPP 06-30-00/100).

J. Removal [\(Figure 401\)](#) [\(Figure 402\)](#)

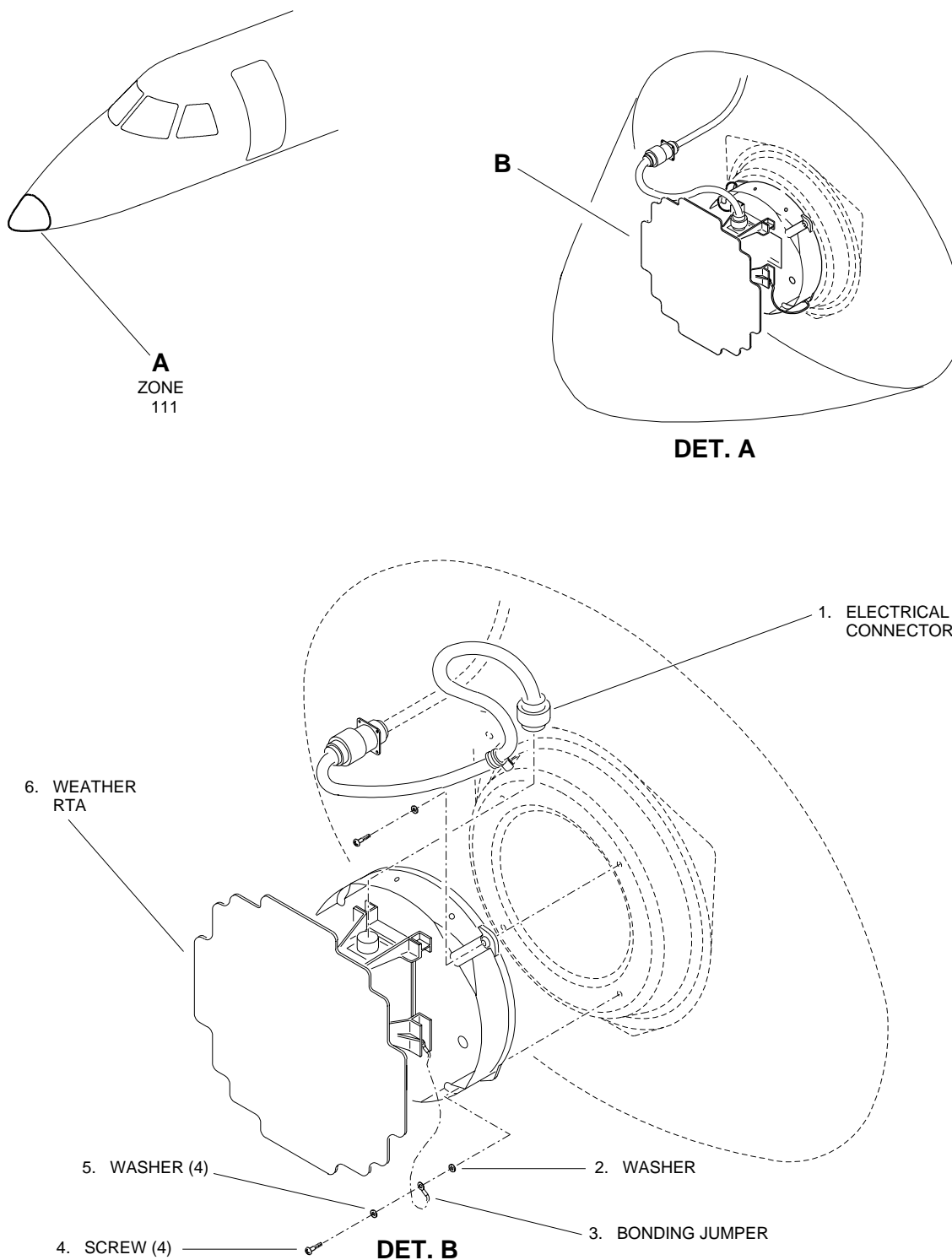
*SUBTASK 020-002-A*

- (1) Remove the electrical connector (1).
- (2) Remove the four screws (4), four washers (5), bonding jumper (3), and washer (2), if applicable.
- (3) Remove the weather RTA (6) assembly.

EFFECTIVITY: PRE-MOD SB 145-34-0005

Weather Receiver/Transmitter Antenna (RTA) - Removal/Installation

Figure 401

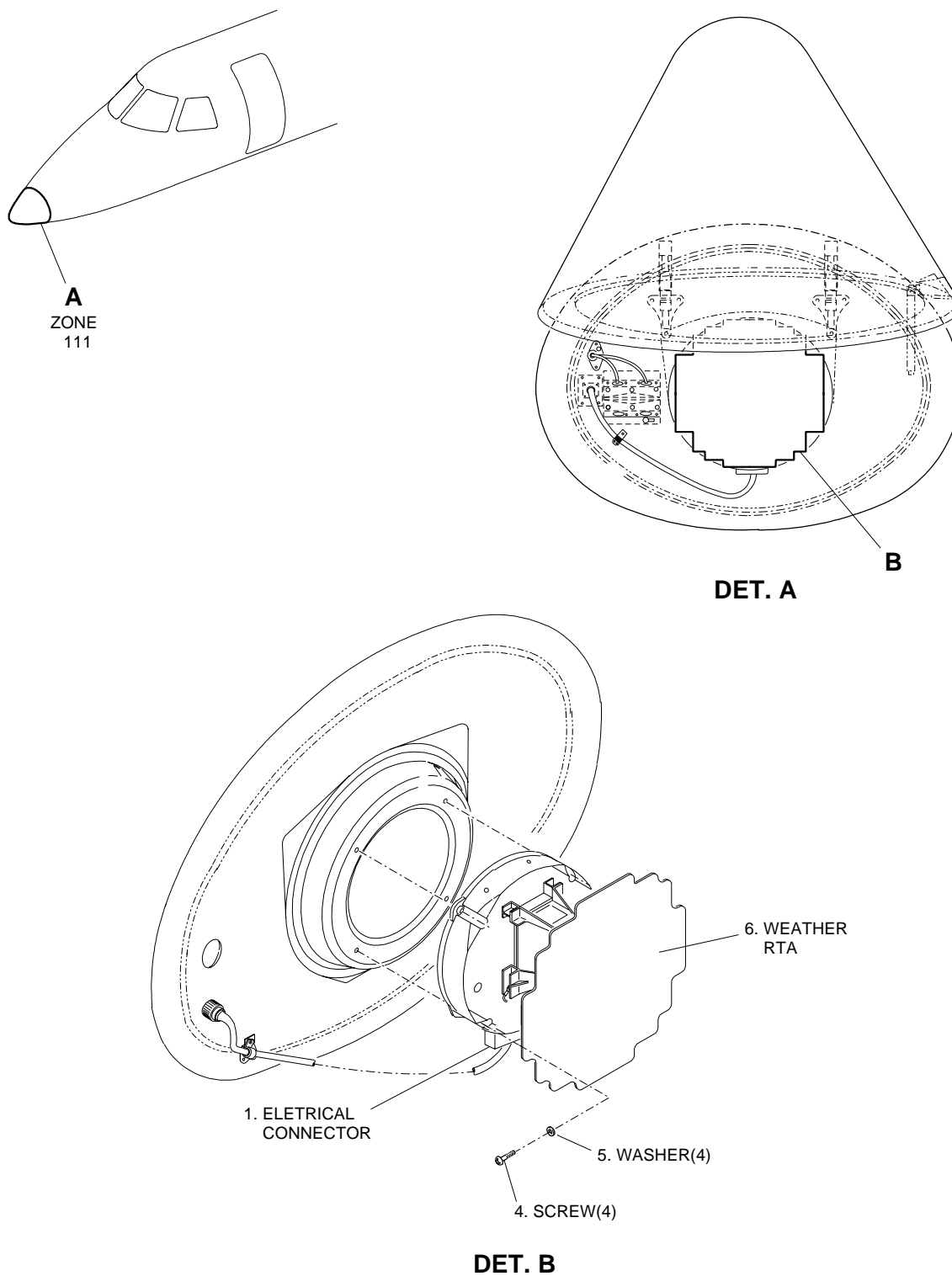


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EFFECTIVITY: POST-MOD SB 145-34-0005

Weather Receiver/Transmitter Antenna (RTA) - Removal/Installation

Figure 402



EM145AMM340245B.DGN

TASK 34-42-01-400-801-A

EFFECTIVITY: ALL

### 3. WEATHER RECEIVER/TRANSMITTER ANTENNA (RTA) - INSTALLATION

#### A. General

- (1) This procedure gives the instructions to install the weather receiver/transmitter antenna (RTA) assembly.

#### B. References

REFERENCE	DESIGNATION
AMM MPP 06-30-00/100	-
AMM MPP 20-30-05/200	- MAINTENANCE PRACTICES
AMM TASK 34-42-00-700-801-A/500	WEATHER RADAR SYSTEM OPERATIONAL TEST

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
111		Radome

#### D. Tools and Equipment

Not Applicable

#### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
400-grit	Sandpaper	To remove Alodine residues	AR
Commercially available	Clean Dry Cloth	To clean the surface	AR
Commercially available	Fine-bristled Brush	To apply Alodine 1200S	1

#### F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
ASTM-D740	Methyl-ethyl-ketone	AR
MIL-C-5541	Alodine 1200S	AR
MEP 10-057	Fluid-Resistant Nylon NYCOTE 7-11-DARK BLUE Varnish	AR

#### G. Expandable Parts

Not Applicable

#### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Forward fuselage I

I. Installation (Figure 401) (Figure 402)

*SUBTASK 420-002-A*

- (1) Clean and protect the surface as described below for installation of the new weather radar receiver/transmitter antenna:
  - (a) Sand the surface with a No. 400-grit sandpaper to remove all Alodine residues and clean the surface with a cloth wet with methyl-ethyl-ketone solvent, specification ASTM-D740; then pass a clean dry cloth before the solvent evaporates.
  - (b) With a fine-bristled brush, apply a thin coat of Alodine 1200S, specification MIL-C-5541, on the surface. Stop until the surface has a uniform amber color.
- (2) Put the weather RTA (6) in its installation position, in the radome.
- (3) Install the washer (2) and bonding jumper (3), if applicable, four washers (5) and four screws (4).
- (4) Install the electrical connector (1).

J. Follow-on

*SUBTASK 842-002-A*

- (1) Apply a thin coat of the Fluid-Resistant Nylon NYCOTE 7-11-DARK BLUE Varnish in the bonding area.

NOTE: For more information about the varnish, refer to ( [AMM MPP 20-30-05/200](#)).
- (2) (Aircraft equipped with one weather radar controller) On the circuit breaker panel, close the RADAR circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (3) (Aircraft equipped with two weather radar controllers) On the circuit breaker panel, close the RADAR CONT 1 and RADAR CONT 2/RTA circuit breakers, and remove the DO-NOT-CLOSE tags from them.
- (4) Close the radome and lock it (AMM MPP 06-30-00/100).
- (5) Do the weather radar operational test ( [AMM TASK 34-42-00-700-801-A/500](#)).

TASK 34-42-01-000-802-A

EFFECTIVITY: ALL

#### 4. WEATHER RADAR FLAT PLATE ANTENNA - REMOVAL

##### A. General

- (1) This procedure gives the instructions to remove the flat plate antenna from the weather receiver/transmitter antenna assembly.

##### B. References

REFERENCE	DESIGNATION
AMM MPP 06-30-00/100	-

##### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
111		Radome

##### D. Tools and Equipment

Not Applicable

##### E. Auxiliary Items

Not Applicable

##### F. Consumable Materials

Not Applicable

##### G. Expandable Parts

Not Applicable

##### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Forward fuselage I

##### I. Preparation

###### **SUBTASK 841-003-A**

- (1) (Aircraft equipped with one weather radar controller) On the circuit breaker panel, open the RADAR circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) (Aircraft equipped with two weather radar controllers) On the circuit breaker panel, open the RADAR CONT 1 and RADAR CONT 2/RTA circuit breakers and attach DO-NOT-CLOSE tags to them.
- (3) Open the radome and lock it in a safe position to get access to the weather RTA (AMM MPP 06-30-00/100).



J. Removal (Figure 403)

SUBTASK 020-003-A

**WARNING: MAKE SURE THAT THE WEATHER RADAR POWER IS OFF AND THE ANTENNA CANNOT SCAN. INJURY TO PERSONS CAN OCCUR IF THE WEATHER RADAR TRANSMITS OR IF THE ANTENNA IS PERMITTED TO SCAN.**

**CAUTION: BE VERY CAREFUL TO MAKE SURE THAT THE HIGH VOLTAGE CABLE TO THE MAGNETRON IS NOT PINCHED BETWEEN THE FLAT PLATE ATTACHING STUDS AND THE RTA BODY. IF THE CABLE IS DAMAGED, ARCING AND EXPENSIVE DAMAGE CAN RESULT.**

(1) Remove the weather radar flat plate as follows:

- (a) Hold the flat plate antenna (3) and remove the seven screws (1) and lock washers (2) that attach it to the weather RTA (4) shown by arrows. Refer to Figure 403.

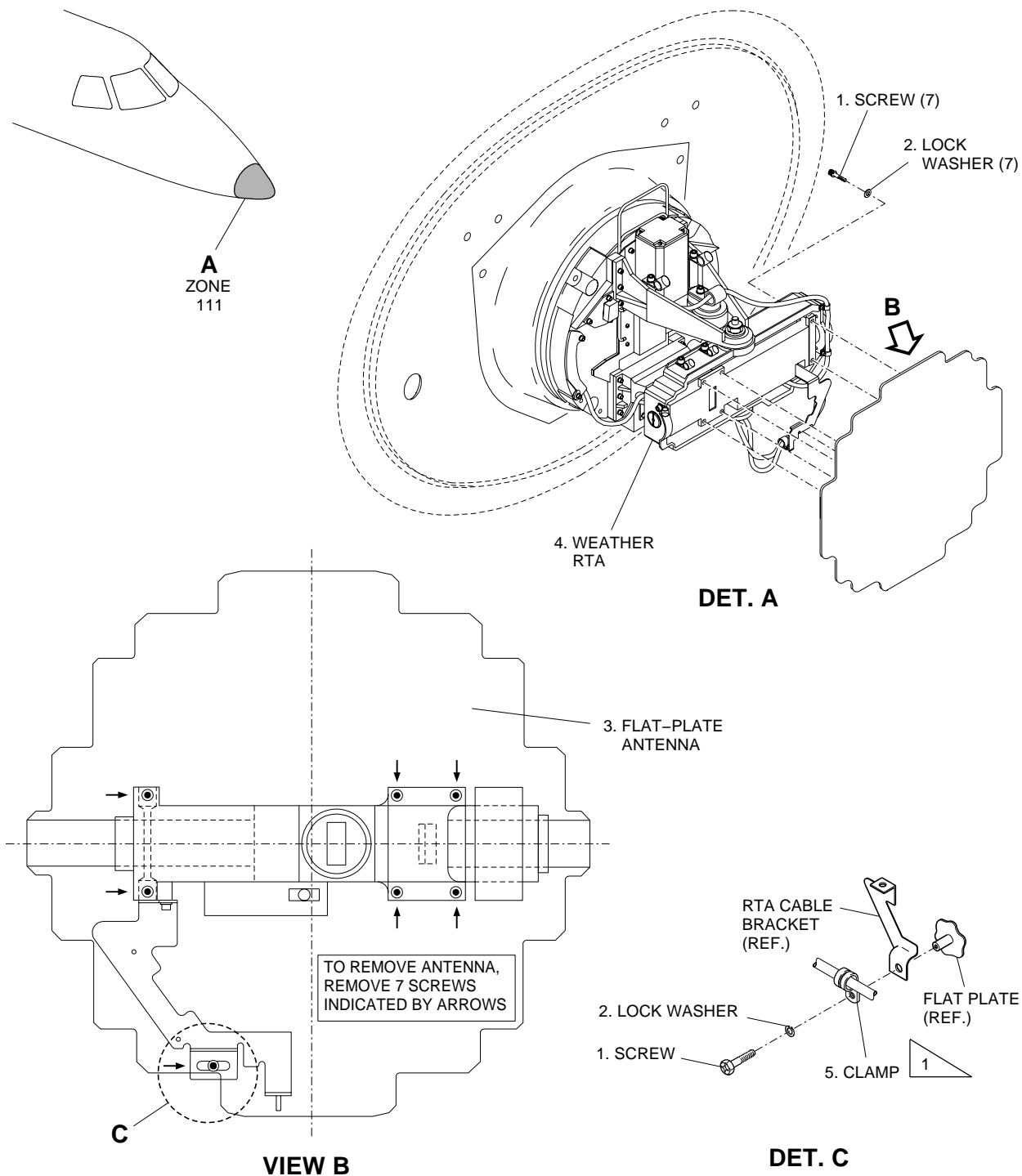
- NOTE:**
- The screws that attach the flat plate are behind it and they are shown by arrows.
  - You can carefully move the flat plate antenna, to get access to each screw that attaches it to the weather RTA.
  - If there is a clamp (5) installed with the bottom screw, take care not to loosen it from the weather RTA cables. If you will not immediately install a new flat plate antenna (3) in the weather RTA (4), you can attach the clamp to the weather RTA with a tie-down strap.

- (2) If you will not immediately install a new flat plate antenna (3) in the weather RTA (4), install the protective device in the hole of the wave guide, on the weather RTA (4).

EFFECTIVITY: ALL

Weather Radar Flat Plate Antenna - Removal/Installation

Figure 403



1 IF APPLICABLE TO AIRCRAFT CONFIGURATION.

EM145AMM340980C.DGN

TASK 34-42-01-400-802-A  
EFFECTIVITY: ALL

5. WEATHER RADAR FLAT PLATE ANTENNA - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the flat plate antenna to the weather receiver/transmitter assembly.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-30-00/100	-
<a href="#">AMM TASK 34-42-00-700-801-A/500</a>	WEATHER RADAR SYSTEM OPERATIONAL TEST

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
111		Radome

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Forward fuselage I

I. Installation (Figure 403)

**SUBTASK 420-003-A**

- (1) Install the weather radar flat plate antenna as follows:
- (a) Hold the flat plate antenna (3), put it in its installation position, and align the flat plate antenna (3) with the seven screw holes at the locations shown by arrows.
- (2) If there is a clamp (5) attached to the weather RTA cables with a tie-down strap, do the steps that follow:

**NOTE:** If the weather RTA you will install is not a new unit, it can not have a tie-down strap that attaches the clamp to the weather RTA cables.

- (a) Install the six center screws (1) and lock washers (2) that attach the flat plate antenna (3) to the weather RTA (4).

NOTE: You can carefully move the support of the weather RTA, which will be attached to the flat plate antenna, to get access to each screw hole before you install each screw.

- (b) Remove and discard the tie-down strap that attaches the clamp (5) to the weather RTA cables.
  - (c) Align the hole of the clamp (5) to the bottom screw hole of the flat plate antenna (3).
  - (d) Install the bottom screw (1) and lock washer (2) that attach the clamp (5) to the flat plate antenna (3) and the flat plate antenna (3) to the weather RTA (4).
- (3) If there is not a clamp (5) to attach the weather RTA cables to the flat plate antenna (3), install the screws (1) and lock washers (2) that attach the flat plate antenna (3) to the weather RTA (4).

NOTE: You can carefully move the support of the weather RTA, which will be attached to the flat plate antenna, to get access to each screw hole before you install each screw.

J. Follow-on

*SUBTASK 842-003-A*

- (1) (Aircraft equipped with one weather radar controller) On the circuit breaker panel, close the RADAR circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (2) (Aircraft equipped with two weather radar controllers) On the circuit breaker panel, close the RADAR CONT 1 and RADAR CONT 2/RTA circuit breakers, and remove the DO-NOT-CLOSE tags from them.
- (3) Close the radome and lock it (AMM MPP 06-30-00/100).
- (4) Do the weather radar operational test ( [AMM TASK 34-42-00-700-801-A/500](#)).