

AILERON - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the ailerons.
- B. These procedures are applicable to the LH and RH ailerons.
- C. 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
27-10-00-000-801-A	AILERON - REMOVAL	ALL
27-10-00-400-801-A	AILERON - INSTALLATION	ALL

TASK 27-10-00-000-801-A

EFFECTIVITY: ALL

2. AILERON - REMOVAL

A. General

(1) This procedure gives the instructions to remove the aileron.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-44-00/100	- COMPONENT LOCATION
AMM TASK 27-12-01-000-801-A/400	AILERON POWER-CONTROL ACTUATOR (PCA) - REMOVAL
AMM TASK 27-12-03-000-801-A/400	AILERON DAMPER - REMOVAL
AMM TASK 31-31-06-000-801-A/400	FDR AILERON RVDTS/RVITS - REMOVAL
AMM TASK 57-56-04-000-801-A/400	AILERON LOWER SHROUD - REMOVAL
SB145-27-0063	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
551	551CB	Wing
651	651CB	Wing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Kit, rig pins, flight controls	To rig the aileron system in the neutral position	

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	Wing
1	Helps the other technician	Wing

I. Preparation

SUBTASK 841-002-A

- (1) Remove access doors 551CB and 651CB ([AMM MPP 06-44-00/100](#)).
- (2) Install the rig pin in the wing sector to lock the aileron in the neutral position ([Figure 401](#)).
- (3) Remove the aileron lower shrouds ([AMM TASK 57-56-04-000-801-A/400](#)).
- (4) Disconnect the ends of the actuators from the aileron ([AMM TASK 27-12-01-000-801-A/400](#)).
- (5) EFFECTIVITY: ACFT POST-MOD [SB145-27-0063](#).
Disconnect the aileron damper from the aileron ([AMM TASK 27-12-03-000-801-A/400](#)).

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

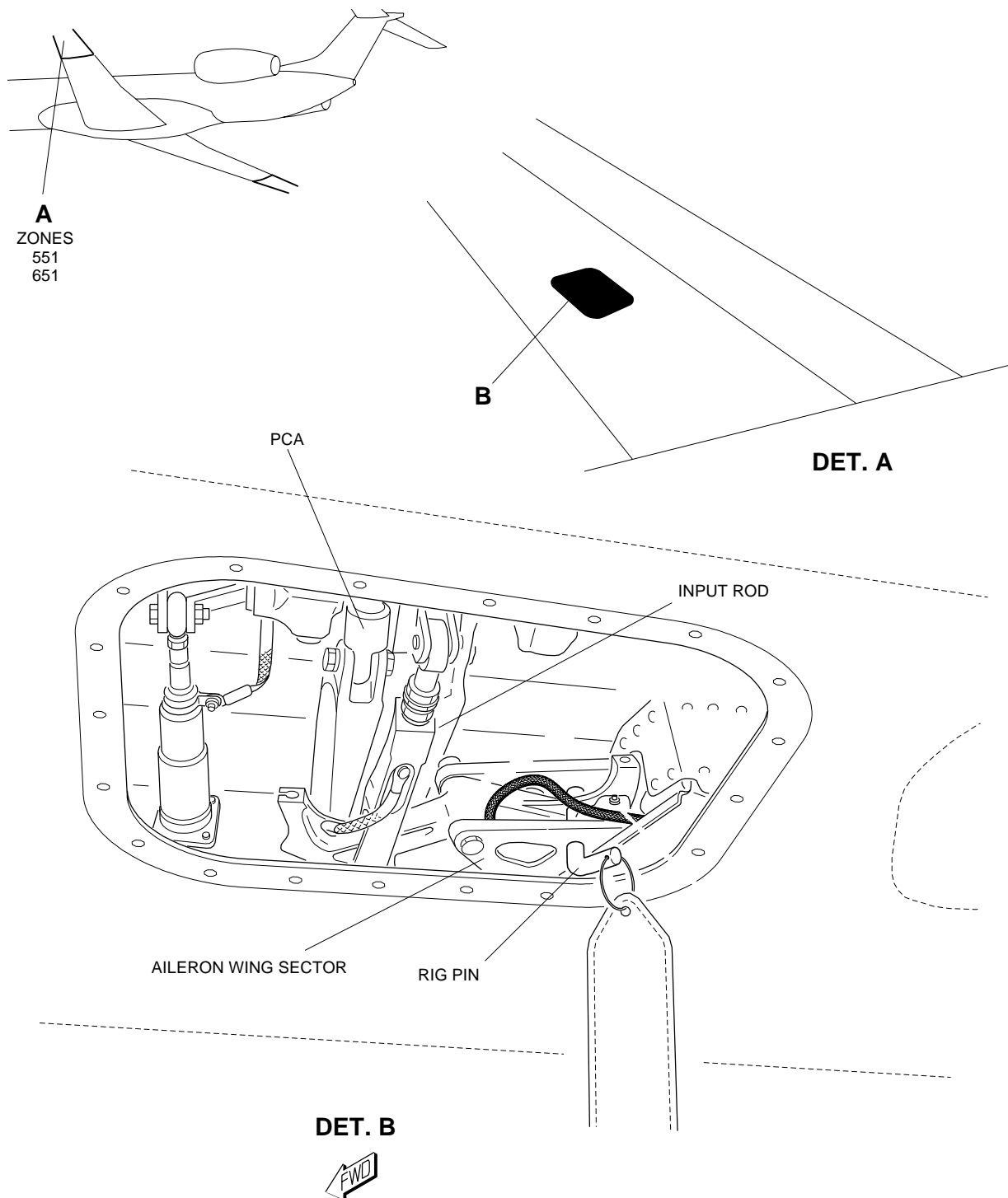
SUBTASK 020-002-A

- (1) On aircraft with RVDT/RVIT, disconnect the rod from the aileron surface (refer to [AMM TASK 31-31-06-000-801-A/400](#)).
- (2) Remove the nut (9), washers (10), (11), (13) and (14) and bolt (15) to disconnect the bonding straps (12), (2 positions), as shown in [Figure 402](#).
- (3) Remove the cotter pin (2), nut (3), washers (4) and (7), bushings (5) and (6) and bolt (8) to disconnect the 3 aileron hinges from the supports at the wing structure, as shown in [Figure 402](#).
- (4) Remove the cotter pin (16), nut (17), washers (18) and (20), bushing (19) and bolt (21) to disconnect the aileron hinge from the support at the wing structure, as shown in [Figure 402](#).
- (5) Remove the aileron (1).

EFFECTIVITY: ALL

Rig Pins Location in the Fuselage and Wing

Figure 401

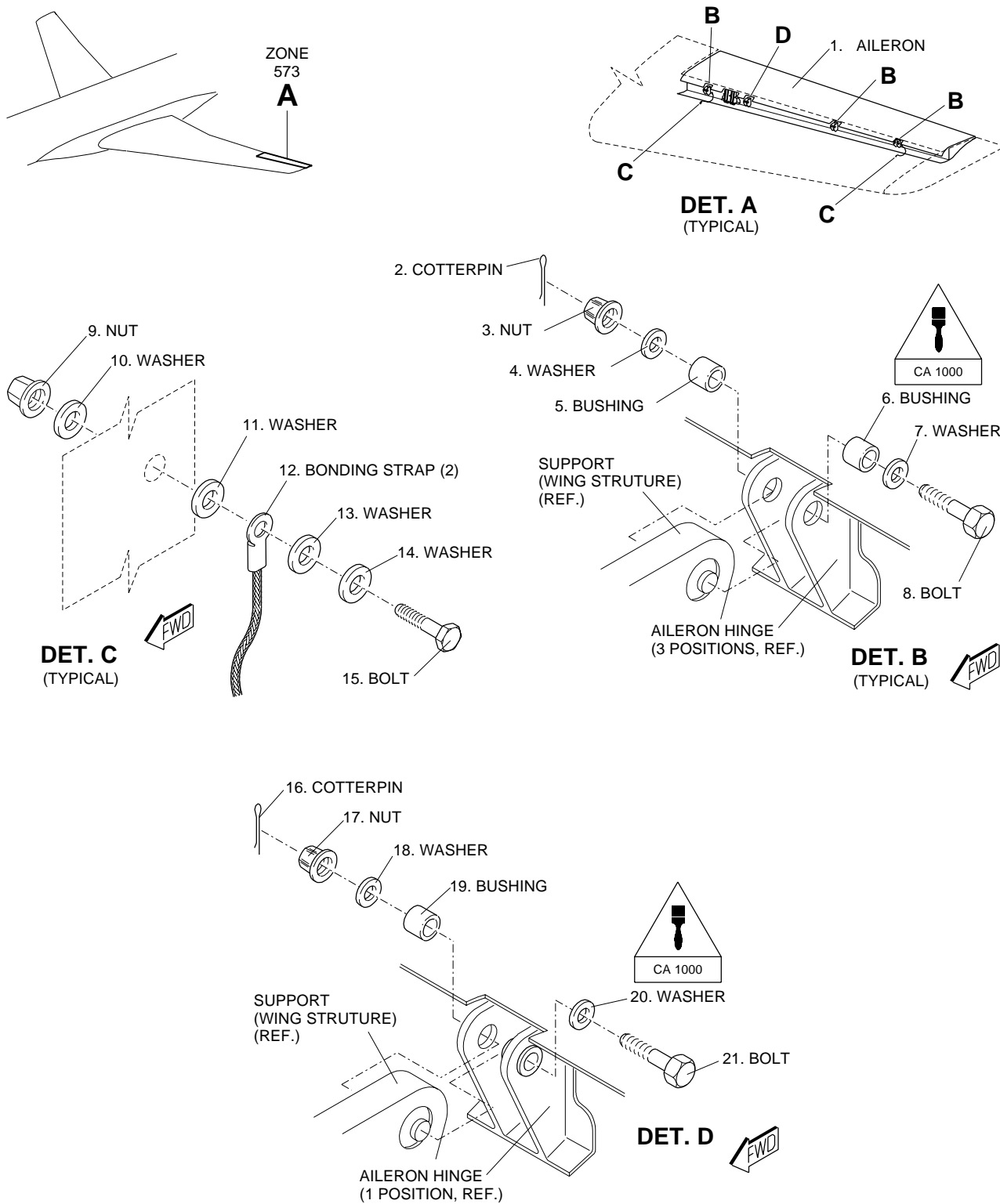


EM145AMM270906A.DGN

EFFECTIVITY: ALL

Aileron - Removal/Installation

Figure 402 - Sheet 1

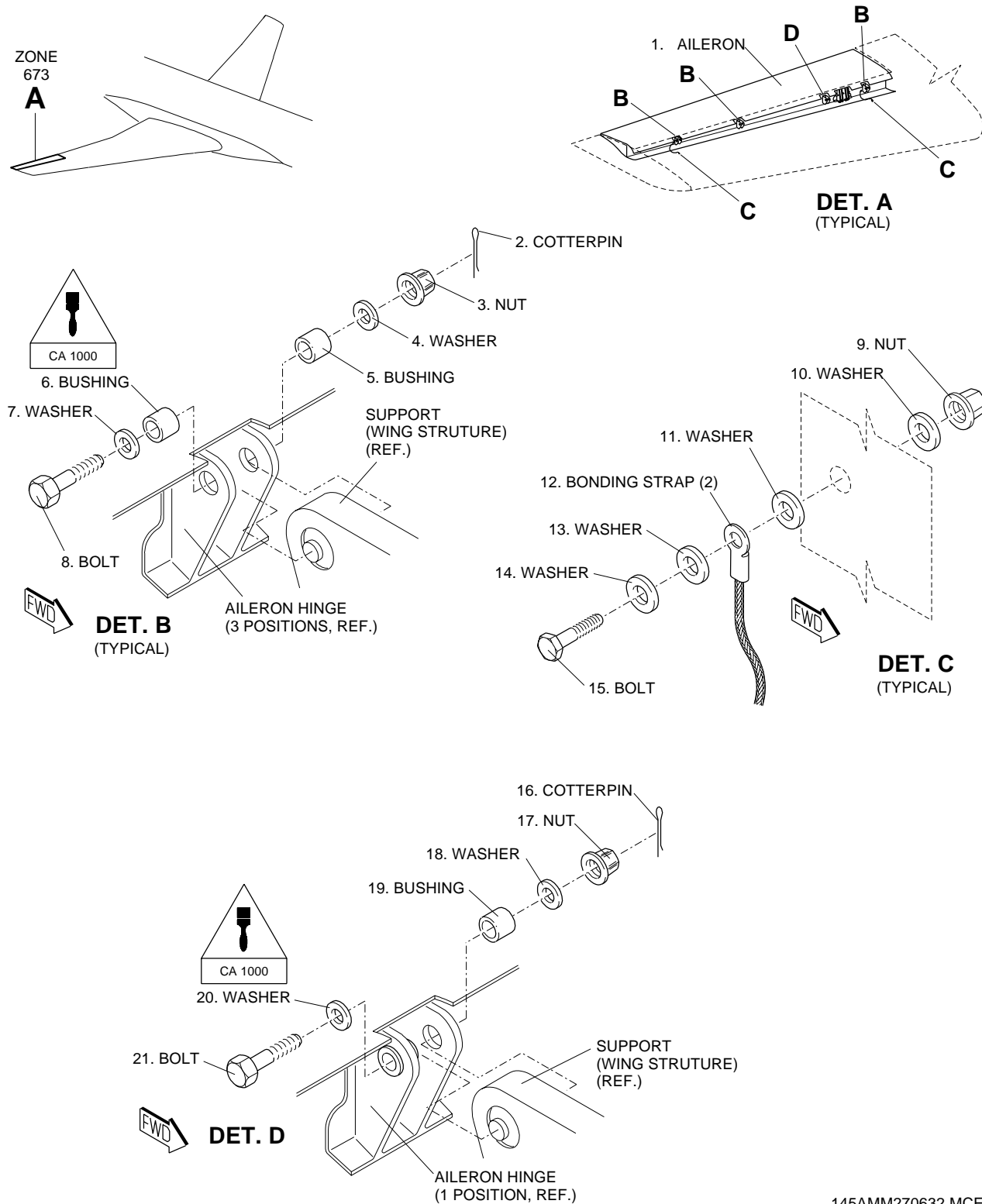


145AMM270630.MCE

EFFECTIVITY: ALL

Aileron - Removal/Installation

Figure 402 - Sheet 2



145AMM270632.MCE

TASK 27-10-00-400-801-A

EFFECTIVITY: ALL

3. AILERON - INSTALLATION

A. General

(1) This procedure gives the instructions to install the aileron.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-44-00/100	- COMPONENT LOCATION
AMM TASK 20-13-21-910-801-A/200	TYPES OF ELECTRICAL BONDING AND SURFACE PREPARATION - STANDARD PROCEDURES
AMM TASK 27-10-00-700-801-A/500	AILERON ADJUSTMENT AND CHECK
AMM TASK 27-11-00-700-801-A/500	AILERON PRIMARY-MECHANICAL CONTROL BACK-LASH - FUNCTIONAL CHECK
AMM TASK 27-12-01-400-801-A/400	AILERON POWER-CONTROL ACTUATOR (PCA) - INSTALLATION
AMM TASK 27-12-03-400-801-A/400	AILERON DAMPER - INSTALLATION
AMM TASK 31-31-06-400-801-A/400	FDR AILERON RVDTs/RVITS - INSTALLATION
AMM TASK 57-56-04-400-801-A/400	AILERON LOWER SHROUD - INSTALLATION
IPC 27-11-02	AILERON INSTL
SB145-27-0063	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
551	551CB	Wing
651	651CB	Wing

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves	Protection for the hands	1 pair
Commercially available	Goggles	Protection for the eyes	1 pair

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MEP 09-060	Corrosion-Inhibiting Compound (CA-1000)	AR

(Continued)

<i>SPECIFICATION (BRAND)</i>	<i>DESCRIPTION</i>	<i>QTY</i>
MEP 09-075	Corrosion-Inhibiting Compound (COR-BAN 27L)	AR

G. Expendable Parts

<i>ITEM</i>	<i>IPC REFERENCE (VENDOR REFERENCE)</i>	<i>QTY</i>
Cotter pin	IPC 27-11-02	4

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	Wing
1	Helps the other technician	Wing

I. Installation (Figure 402)

SUBTASK 420-002-A

WARNING: CA-1000 OR COR-BAN 27L CORROSION-INHIBITING COMPOUND IS TOXIC TO SKIN, EYES, AND RESPIRATORY TRACT. USE GOGGLES AND PROTECTIVE GLOVES. USE ONLY IN WELL VENTILATED AREAS. OBEY THE MANUFACTURER'S HEALTH AND SAFETY INSTRUCTIONS.

- (1) Apply CA-1000 or COR-BAN 27L to the bolts (15) and (21) and to the bushings (5), (6) and (19). Use gloves, goggles, and a brush for it.
- (2) Put the aileron (1) on the wing structure.
- (3) Install the bolt (8), washers (4) and (7), bushings (5) and (6), nut (3), and cotter pin (2) to connect the 3 aileron hinges to the supports at the wing structure, as shown in (Figure 402).
- (4) Install the bolt (21), washers (18) and (20), bushing (19), nut (17) and cotter pin (16) to connect the aileron hinge to the support at the wing structure, as shown in (Figure 402).
- (5) Connect the bonding strap (12) (2 positions) with the bolt (15), washers (10), (11), (13) and (14) and nut (9), as shown in (Figure 402).

NOTE: Refer to [AMM TASK 20-13-21-910-801-A/200](#) for the correct installation of the bonding strap (12).

- (6) On aircraft with RVDT/RVIT, connect the rod to the aileron surface (refer to [AMM TASK 31-31-06-400-801-A/400](#)).

J. Follow-on

SUBTASK 842-002-A

- (1) Connect the ends of the actuators to the aileron ([AMM TASK 27-12-01-400-801-A/400](#)).

- (2) EFFECTIVITY: ACFT POST-MOD [SB145-27-0063](#).

Connect the aileron damper to the aileron ([AMM TASK 27-12-03-400-801-A/400](#)).

- (3) Remove the rig pin from the wing sector.

- (4) Do a check of the aileron backlashes ([AMM TASK 27-11-00-700-801-A/500](#)).

NOTE: Do this step only if you replaced the aileron with a new one or if you replaced it with an aileron used on other aircraft.

- (5) Do a check of the aileron deflections ([AMM TASK 27-10-00-700-801-A/500](#)).

- (6) Install the aileron lower shrouds ([AMM TASK 57-56-04-400-801-A/400](#)).

- (7) Install access doors 551CB and 651CB ([AMM MPP 06-44-00/100](#)).

