



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

INBOARD FLAP - EXTERNAL - INSPECTION/CHECK

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the visual inspection of the inboard flap, ground spoiler, and speed brake for general condition.
- B. Related Zones: 571/671/5711/6711/5712/6712/5713/6713.
- C. Zone Boundaries:
  - STA Y = -960.0 (rib 1) thru STA Y = -3815.00 (rib 9).
  - STA Y = -1085.00 thru STA Y = -2450.00.
  - STA Y = -2450.00 thru STA Y = -3815.00 (rib 9).
- D. 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
05-20-90-200-801-A ♦	INBOARD FLAP GROUND SPOILER AND SPEED BRAKE - EXTERNAL GENERAL VISUAL INSPECTION	ALL



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AIRCRAFT  
MAINTENANCE MANUAL

TASK 05-20-90-200-801-A

EFFECTIVITY: ALL

2. INBOARD FLAP GROUND SPOILER AND SPEED BRAKE - EXTERNAL GENERAL VISUAL INSPECTION

A. General

- (1) This task gives instructions to do SMRD Zonal Task 57-Z571-213-001-A00.
- (2) You must do the external general visual inspection (GVI) of wing, at zones 571/671/5711/6711/5712/6712/5713/6713, within a touching distance of the items examined.
- (3) The function of the external general visual inspection (GVI) is to find damage, failure, or irregular conditions that can be easily seen.

B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 27-51-00-700-801-A/500	FLAP CONTROL SYSTEM - OPERATIONAL CHECK
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 066	Ground Spoiler Locking Clamp	To lock the Ground Spoiler actuator	
GSE 067	Speed Brake locking clamp	To lock the speed brake actuator	
Standard	Stand	To get access to the inspection area	

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	Inboard flap, Ground spoiler, and Speed brake

I. Preparation

SUBTASK 841-002-A

**WARNING: MAKE SURE THAT THERE ARE NO PERSONS OR EQUIPMENT IN THE FLAP TRAVEL AREA.**

- (1) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Pressurize the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (3) Open the ground spoiler surface.
- (4) Open the speed brake surface.
- (5) Release the pressure of the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (6) Set the flaps to the 45-degree position.
- (7) On the circuit breaker panel, open the FLAP 1 and FLAP 2 circuit breakers and attach a DO-NOT-CLOSE tag to them.
- (8) On the circuit breaker panel, open the GND SPLR OUTBD and GND SPLR INBD circuit breakers and attach a DO-NOT-CLOSE tag to them.
- (9) On the circuit breaker panel, open the SPEED BRAKE circuit breakers and attach a DO-NOT-CLOSE tag to it.
- (10) Install the GSE 066 on the ground spoiler actuator to lock the spoiler actuator ([Figure 601](#)).
- (11) Install the GSE 067 on the speed brake actuator to lock the spoiler actuator ([Figure 602](#)).
- (12) Put the stand in position.

J. External General Visual Inspection ([Figure 603](#)) ([Figure 604](#)) ([Figure 605](#))

SUBTASK 212-002-A

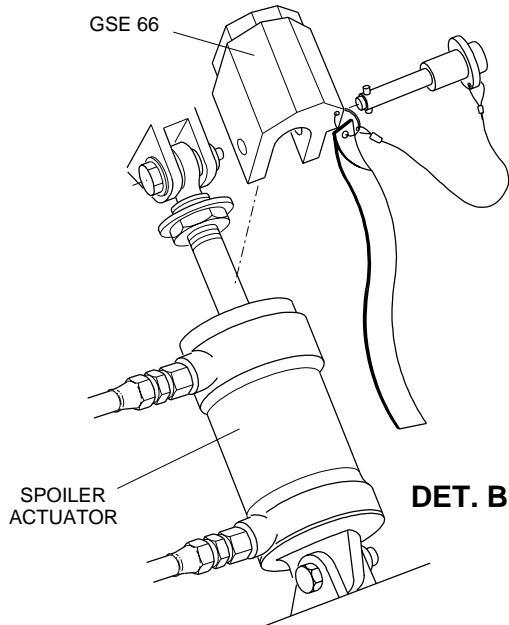
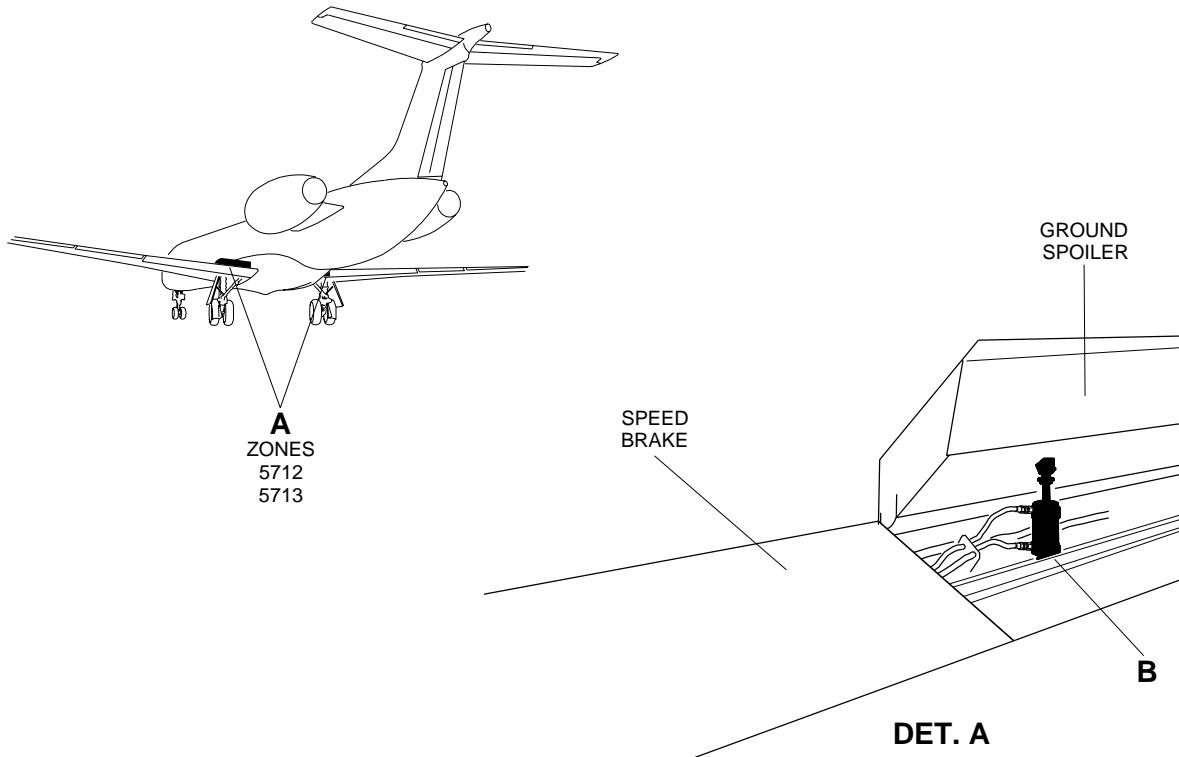
- (1) Examine the zone for loose rivets, skin deformation, nicks, cracks, dents, scratches, gouges, creases, erosion, corrosion, and deteriorated protective treatment.
- (2) Examine the inboard flap at main box upper skin, and fitting pin and actuator lugs for loose rivets, skin deformation, flaking paint, sealant poor condition, nicks, cracks, dents, scratches, gouges, creases, erosion, corrosion, and deteriorated protective treatment ([Figure 603](#)).
- (3) Visually examine the inboard flap lower shroud for integrity.
- (4) Examine the ground spoiler at hinges and actuator attachments for loose rivets, skin deformation, sealant poor condition, nicks, cracks, dents, scratches, gouges, creases, erosion, corrosion, and deteriorated protective treatment ([Figure 604](#)).
- (5) Examine the speed brake at hinges and actuator attachments for loose rivets, skin deformation, sealant poor condition, nicks, cracks, dents, scratches, gouges, creases, erosion, corrosion, and deteriorated protective treatment ([Figure 605](#)).

K. Follow-on

**SUBTASK 842-002-A**

- (1) Remove the GSE 067 from the speed brake actuator to release the spoiler actuator.
- (2) Remove the GSE 066 from the ground spoiler actuator to release the spoiler actuator.
- (3) Remove the stand.
- (4) Pressurize the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (5) Close the speed brake surface.
- (6) Close the ground spoiler surface.
- (7) Release the pressure of the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (8) On the circuit breaker panel, close the SPEED BRAKE circuit breakers and remove the DO-NOT-CLOSE tag from it.
- (9) On the circuit breaker panel, close the GND SPLR OUTBD and GND SPLR INBD circuit breakers and remove the DO-NOT-CLOSE tag from them.
- (10) On the circuit breaker panel, close the FLAP 1 and FLAP 2 circuit breakers and remove the DO-NOT-CLOSE tag from it.
- (11) Do an operational check of the Flap Control System ([AMM TASK 27-51-00-700-801-A/500](#)).
- (12) Remove the External DC Power Supply from the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

**EFFECTIVITY: ALL**  
**GSE 066 Installation**  
**Figure 601**

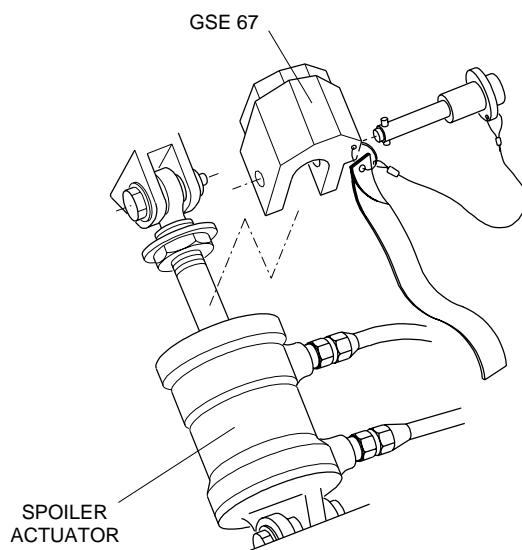
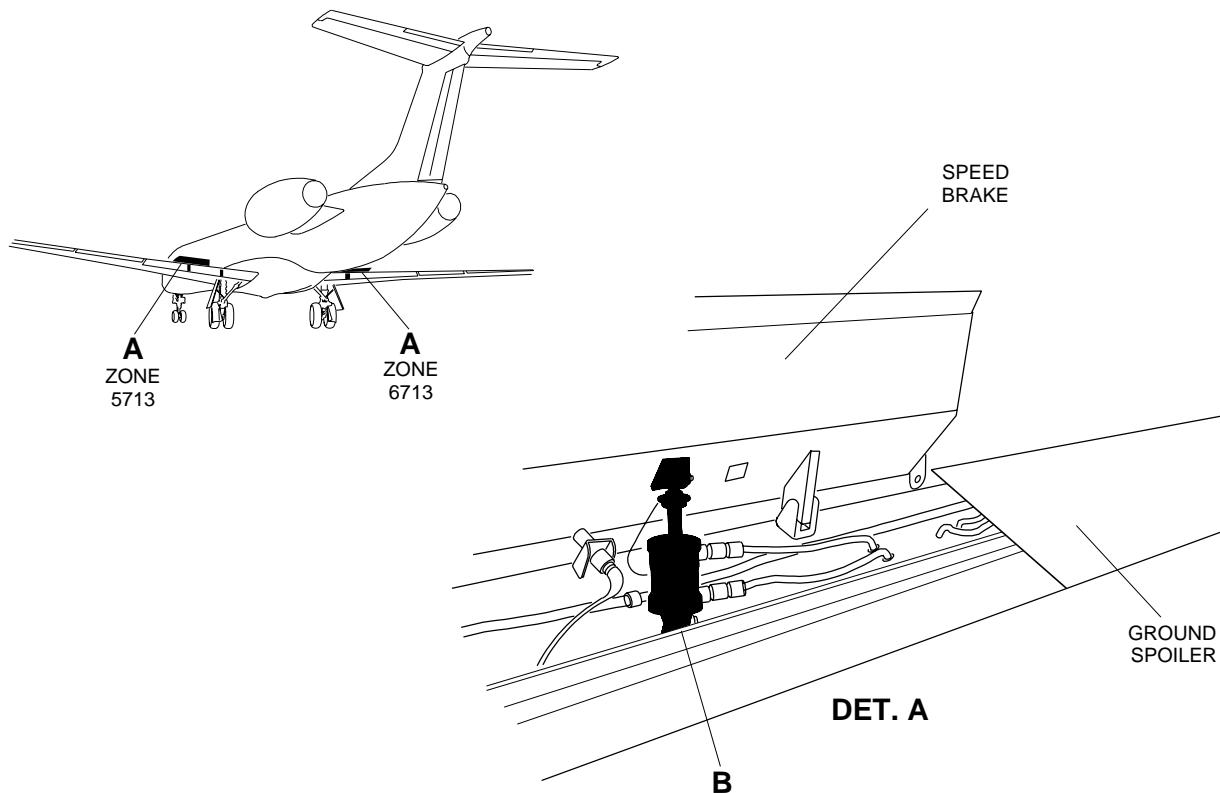


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**EFFECTIVITY: ALL**

GSE 067 Installation

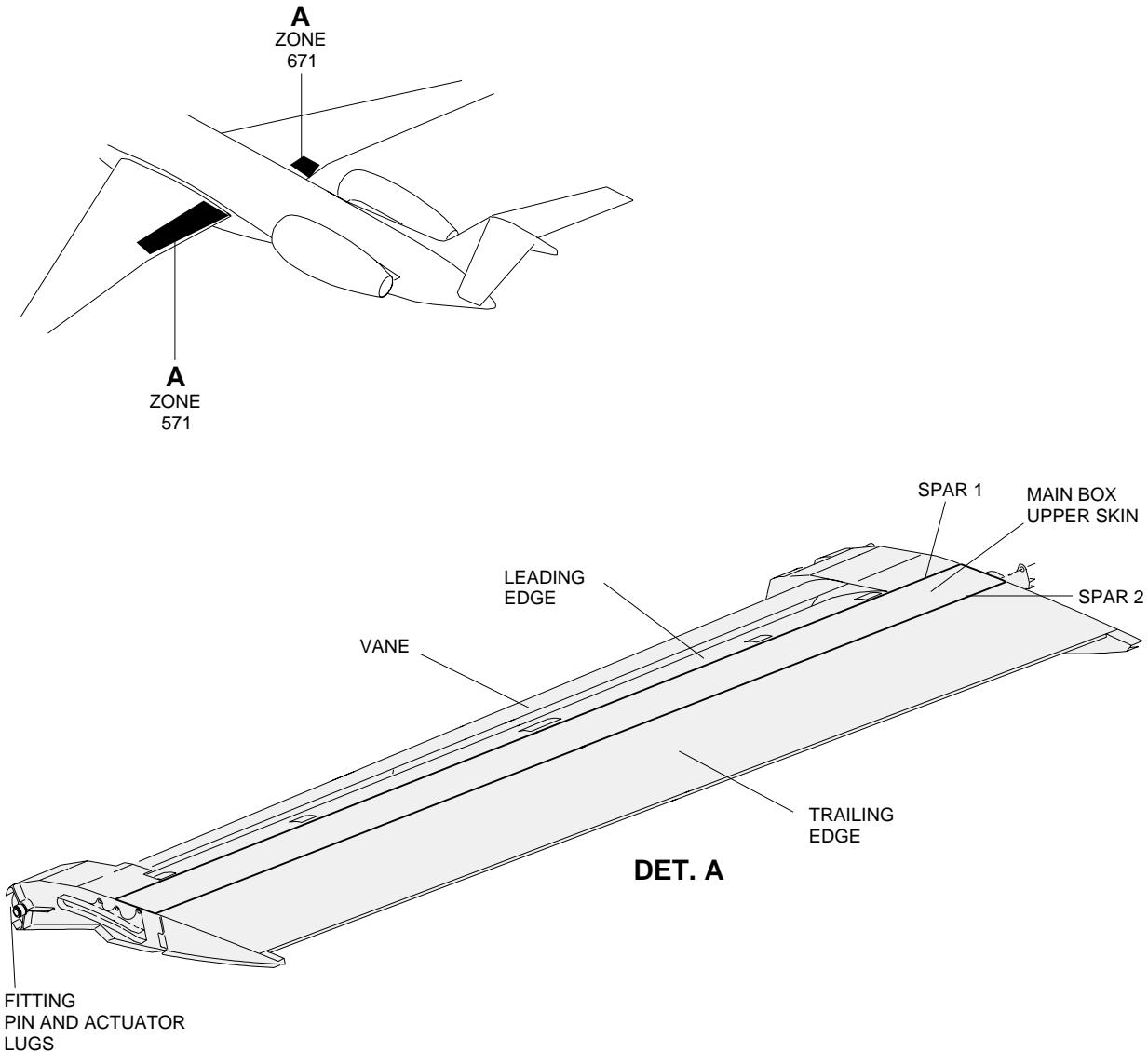
Figure 602



**DET. B**

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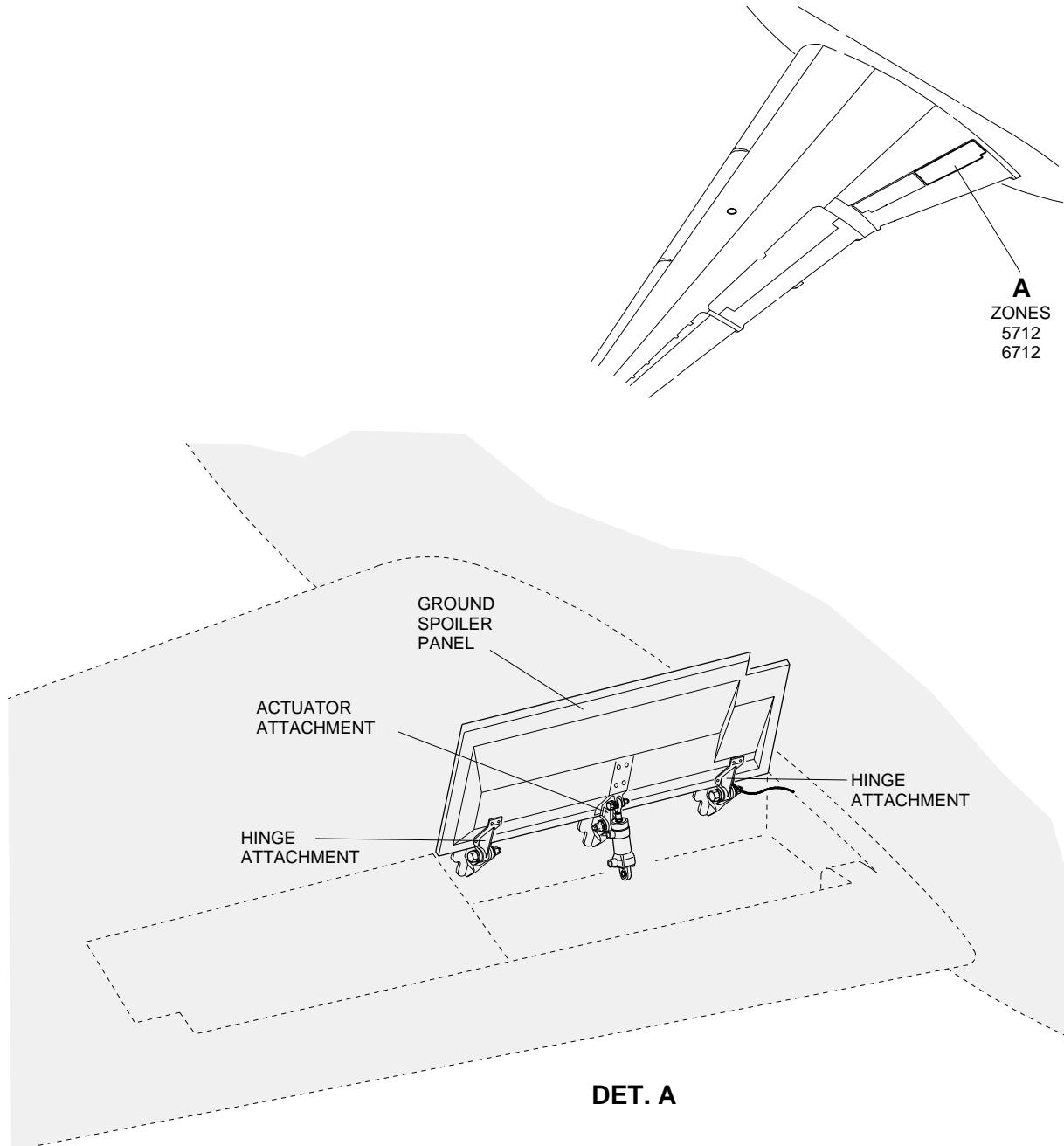
**EFFECTIVITY: ALL**

 Inboard Flap - External General Visual Inspection  
 Figure 603


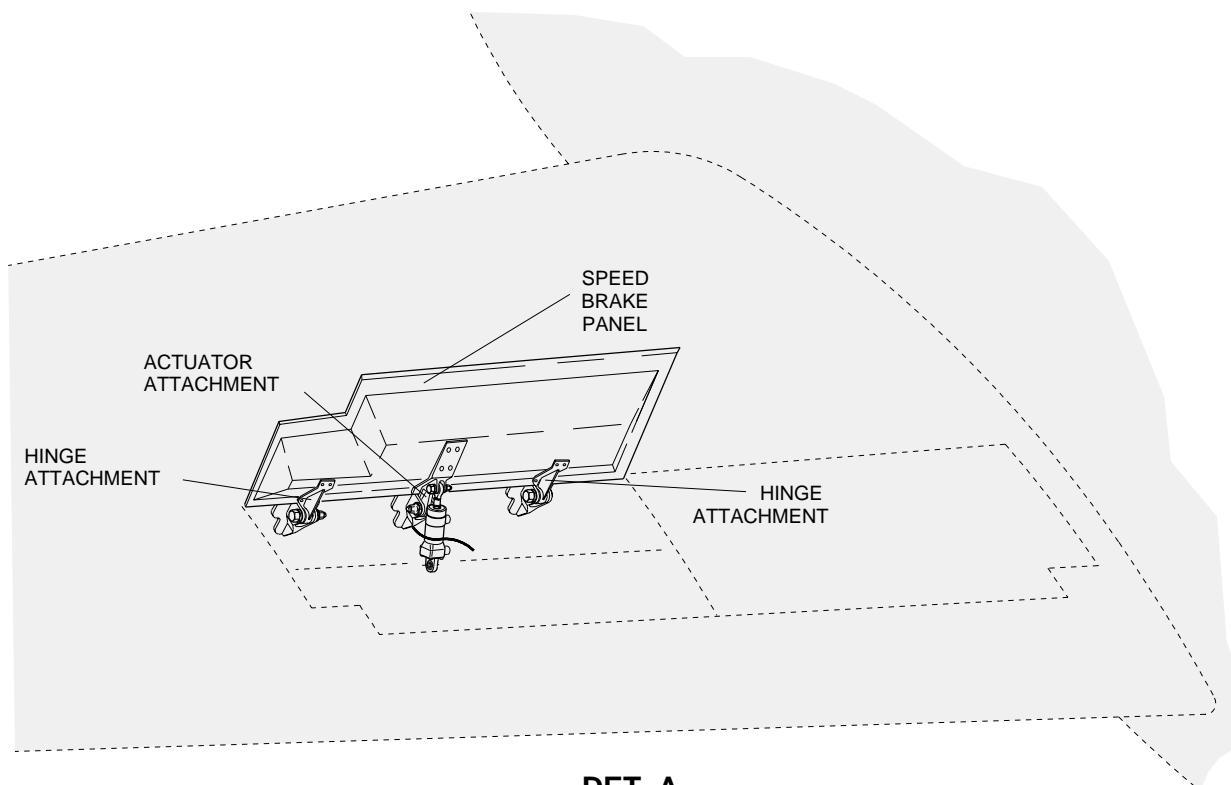
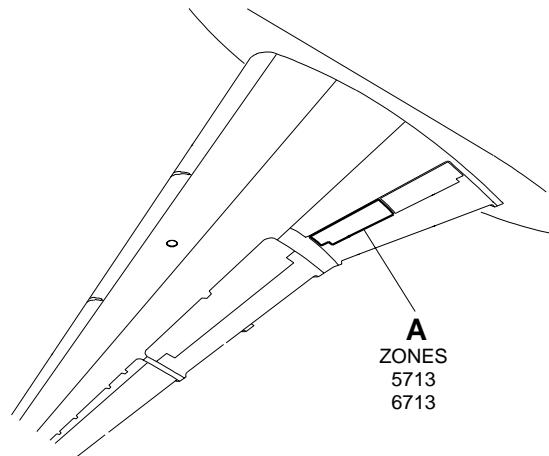
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**EFFECTIVITY: ALL**

Ground Spoiler - External General Visual Inspection  
Figure 604



**EFFECTIVITY: ALL**

 Speed Brake - External General Visual Inspection  
 Figure 605


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