AVIATION PARTNERS BOEING SERVICE BULLETIN

555 Andover Park W., Suite 200
Tukwila, WA 98188
(206) 830-7699

ALERT

NUMBER:	**AP737-57-022**	Revision Transmittal Sheet
Original Issue:	April 17, 2025	
Revision 2:	August 27, 2025	
ATA SYSTEM:	5720	
SUBJECT:	WINGS - Outer Wing - Outboard Lower Wing Skin at Stringers S-9 and S-10 – Inspection and Repair	

This revision includes all pages of the service bulletin.

COMPLIANCE INFORMATION RELATED TO THIS REVISION

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in this service bulletin mandatory.

For airplanes repaired in accordance with the original issue or Revision 1 of this service bulletin, contact Aviation Partners Boeing (APB) for determination of any additional required regulatory approvals.

Inspections performed in accordance with previous revisions of this service bulletin are not required to be repeated until the next repeat interval as given in this revision.

REASON FOR REVISION

Revision 2 is sent to revise the fastener hardware used in the repair actions found in FIGURE 7 and FIGURE 8 to comply with 28-AWL-12 Lightning, Fault Current or Hot Short Protection – Fuel Tank Penetration requirements, correct typographical/illustration errors, and add additional clarification for repair actions.

These sections were changed:

1.F. Approval

- Added ‘PSE 57-20-04-1’.

1.G. Manpower

- For Table 3 and Table 4, revised manpower estimates for accuracy.

1.H. Weight and Balance Changes

- Revised values for ‘Change in Weight’ and ‘Change in Moment’.

1.J. References

- For 1.J.3, added Boeing drawing number ‘112A2001, FASTENER INSTL – FRONT SPAR/WING SKIN INTERFACE’ to table.

2.C. Parts Necessary for Each Airplane

- For 2.C.2, revised fastener hardware part numbers and descriptions to meet requirements per 28-AWL-12, added alternate hardware options with procurement/usage notes, corrected fastener grip lengths, added note for required repair filler thickness, and added additional sealant options.

3.A. General Information

- Revised note 13 to specify washers are not allowed to be used with self-sealing nuts, revised SRM references to call out chapter and section, and removed alternate fastener language.

3.B. Work Instructions

- For Table 2 and Table 4, revised ‘Method of Compliance’ for CONDITION 4.3 and CONDITION 8.3 from ‘FIGURE 5’ to ‘FIGURE 6’.
- Tables 1–4 and CONDITIONS 2.2.2, 4.2.2, 6.2.2, and 8.2.2 (ACTION 3) were updated to include S-8, aligning with inspection instructions in the 1.E Compliance tables.

FIGURE 7

- Revised fastener diameter code call outs for fastener codes ‘A’ and ‘D’ on Sheet 3 of 11.
- Corrected fastener grip lengths for fastener code ‘D’ along S-8L on Sheet 3 of 11.
- Revised fastener code ‘A’, ‘D’, and ‘E’ call outs for field fasteners between S-9L and S-8L for clarity on Sheet 3 of 11.
- Revised sealant call outs on Details E and F to use BMS5-142 and assigned BMS5-95 as an alternate.
- Added fastener centerlines on Details E and F for reference.
- Revised language for step numbers on Sheet 6 of 11 stating they are required to complete the actions shown in the figure.
- Revised Step 23 sealant ‘Identification’ from ‘BMS5-45’ to ‘BMS5-142’.
- Revised note (k) to add statement ‘Filler thickness shall match skin thickness common to stringer 9L’.
- Revised note (p) to add clarification to oversize fastener hole only if required.
- Revised note (p) to add an open hole High Frequency Eddy Current (HFEC) inspection of all existing fastener holes common to the repair after required fastener holes have been oversized.
- Revised note (v) to add BMS5-45 sealant specification, and change the cap seal procedure reference from ’51-20-05’ to ’51-80-01, Figure 1’.
- Revised note (w) to remove the language requiring a 6:1 ratio for aerosealing of the repair for clarity.
- Revised note (w) to change sealant call out from ‘BMS5-45’ to ‘BMS5-142’.
- Revised fastener code table part numbers, descriptions, and hole sizes to meet 28-AWL-12 requirements.
- Revised note (a) on fastener code table to correct sealant part number from ‘BMS5-95’ to ‘BMS5-45’, revised fastener cap seal reference from ‘SRM 51-20-05’ to ‘SRM 51-80-01, Figure 1’.
- Revised note (c) on fastener code table, installation specification from ‘BAC5004-2’ to ‘BAC5047’.
- Added alternate part numbers, notes (d) and (e) to fastener code table for specific airplane line numbers.

FIGURE 8

- Corrected typographical errors for all instances of ‘Figure 7’ and revised to ‘Figure 8’, where applicable.
- Revised fastener diameter code call outs for fastener codes ‘A’ and ‘D’ on Sheet 3 of 11.
- Corrected fastener grip lengths for fastener code ‘D’ along S-8L on Sheet 3 of 11.
- Revised fastener code ‘A’, ‘D’, and ‘E’ call outs for field fasteners between S-9L and S-8L for clarity on Sheet 3 of 11.
- Revised sealant call outs on Details E and F to use BMS5-142 and assigned BMS5-95 as an alternate.
- Added fastener centerlines on Details E and F for reference.
- Revised language for step numbers on Sheet 6 of 11 stating they are required to complete the actions shown in the figure.
- Revised Step 23 sealant ‘Identification’ from ‘BMS5-45’ to ‘BMS5-142’.
- Revised note (a) to state ‘right’ instead of ‘left’.
- Revised note (k) to add statement ‘Filler thickness shall match skin thickness common to stringer 9L’.
- Revised note (p) to add clarification to oversize fastener hole only if required.

FIGURE 8 (Cont.)

- Revised note (p) to add an open hole High Frequency Eddy Current (HFEC) inspection of all existing fastener holes common to the repair after required fastener holes have been oversized.
- Revised note (v) to add BMS5-45 sealant specification, and change the cap seal procedure reference from ’51-20-05’ to ’51-80-01, Figure 1’.
- Revised note (w) to remove the language requiring a 6:1 ratio for aerosealing of the repair for clarity.
- Revised note (w) to change sealant call out from ‘BMS5-45’ to ‘BMS5-142’.
- Revised fastener code table part numbers, descriptions, and hole sizes to meet 28-AWL-12 requirements.
- Revised note (a) on fastener code table to correct sealant part number from ‘BMS5-95’ to ‘BMS5-45’, revised fastener cap seal reference from ‘SRM 51-20-05’ to ‘SRM 51-80-01, Figure 1’.
- Revised note (c) on fastener code table, installation specification from ‘BAC5004-2’ to ‘BAC5047’.
- Added alternate part numbers, notes (d) and (e) to fastener code table for specific airplane line numbers.

REVISION HISTORY

Original Issue:	April 17, 2025
Revision 1:	June 13, 2025
Revision 2:	August 27, 2025

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ATA SYSTEM:	5720
SUBJECT:	WINGS - Outer Wing - Outboard Lower Wing Skin at Stringers S-9 and S-10 – Inspection and Repair

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Original Issue:	April 17, 2025	
Revision 2:	August 27, 2025	
ATA SYSTEM:	5720	
SUBJECT:	WINGS - Outer Wing - Outboard Lower Wing Skin at Stringers S-9 and S-10 – Inspection and Repair	

THIS DOCUMENT IS SENT TO THE OPERATORS OF RECORD OF THE AIRPLANES SHOWN IN PARAGRAPH 1.A., EFFECTIVITY. IF AN AIRPLANE HAS BEEN LEASED OR SOLD, SEND THIS DOCUMENT TO THE NEW OPERATOR. IF APPLICABLE SPARES HAVE BEEN SOLD, SEND THIS DOCUMENT TO THE NEW OWNER.

CONCURRENT REQUIREMENTS

None.

BACKGROUND

Accomplishment of this service bulletin will make sure any crack in the outboard lower wing skin, left and right wing, common to the two most outboard fasteners at stringers S-9 and S-10, is found and repaired before the crack reaches a critical length. If this service bulletin is not done, any crack that is not detected and corrected could cause the inability of the Principle Structural Element to sustain limit loads and subsequent loss of structural integrity.

737-800 operators reported crack findings at the identical fastener location on seven airplanes during routine maintenance inspections. The cracks were all located in the outboard lower wing skin at the outboard end of stringer S-9, common to the most outboard fastener. The cracks were found to extend in the forward and aft direction and ranged from 2 inches to 5 inches in length. The reported airplanes had accumulated between 20,602 to 30,150 flight cycles, and 41,777 to 77,993 flight hours, at the time of finding. Further analysis determined that stringer S-10 has an equivalent stress level to stringer S-9 and could also have early cracking.

This service bulletin gives instructions to do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any crack. A repair is available in this service bulletin for cracks found at the two most outboard fasteners at S-9 if they do not exceed specified size limits.

Boeing Service Related Problem (SRP) 737-NG-SRP-57-0399 is related to this service bulletin.

Boeing Fleet Team Digest (FTD) 737NG-FTD-57-22002 is related to this service bulletin.

This table is provided to operators for planning purposes only. Refer to the applicable sections for more information.

Planning Data	Affected	Reference
Spares Affected	No	Paragraph 1.A.2., Spares Affected
AD Related	Yes	Refer to Service Bulletin AP737-57-022.
Alternative Method of Compliance (AMOC)	Yes	Paragraph 1.F Approval
Weight and Balance Change	Yes	Paragraph 1.H., Weight and Balance Changes
Electrical Load Changed	No	Paragraph 1.I., Electrical Load Data
Publications Affected	No	Paragraph 1.K., Publications Affected
Airplane Flight Operations Affected (Flight Crew Operations Manual and/or FAA Approved Airplane Flight Manual)	No	Paragraph 1.K., Publications Affected
Kits/Parts Required	No	Paragraph 2.C.1., Kits/Parts
Operator Supplied Parts/Material	Yes	Paragraph 2.C.2., Parts and Materials Supplied by the Operator
Special Tooling Required	No	Paragraph 2.F., Special Tooling Necessary to do this Service Bulletin

ACTION

For Group 1 and Group 2 aircraft:

Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any repair.

1. If any repair is found:
    a. Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s) AND
    b. Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any crack at the unrepaired areas.
        (1) If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
        (2) If any crack is found, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
2. If no repair is found, do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
    a. If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
    b. If any crack is found at S-9:
        (1) Do the repair available in this service bulletin if the crack damage can be removed entirely in accordance with FIGURE 7 or FIGURE 8 and repeat inspection in accordance with FIGURE 9 or FIGURE 10, respectively.
        (2) If crack damage cannot be removed by the standard repair available in this service bulletin, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringer S-9, left and right wing, for any crack.

c. If any crack is found at S-10 contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringer S-10, left and right wing, for any crack.

For Group 3, Group 4, and Group 5 aircraft:

Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any repair.

1. If any repair is found:
   a. Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s) AND
   b. Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any crack at the unrepaired areas.
      (1) If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
      (2) If any crack is found, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
2. If no repair is found, do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
   a. If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
   b. If any crack is found, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

EFFECTIVITY

737-700/-800/-900/-900ER Airplanes provisioned for the installation of Split Scimitar Winglets with Blended Winglets or Split Scimitar Winglets installed in accordance with STC ST00830SE

AND

737-700/700C/-800/-900/-900ER airplanes provisioned for the installation of Blended Winglets with Blended Winglets or wing tips installed in accordance with STC ST00830SE.

Refer to Paragraph 1.A.1., Airplanes, for the list of affected airplanes.

COMPLIANCE

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in the service bulletin mandatory.

Refer to Paragraph 1.E., Compliance.

INDUSTRY SUPPORT INFORMATION

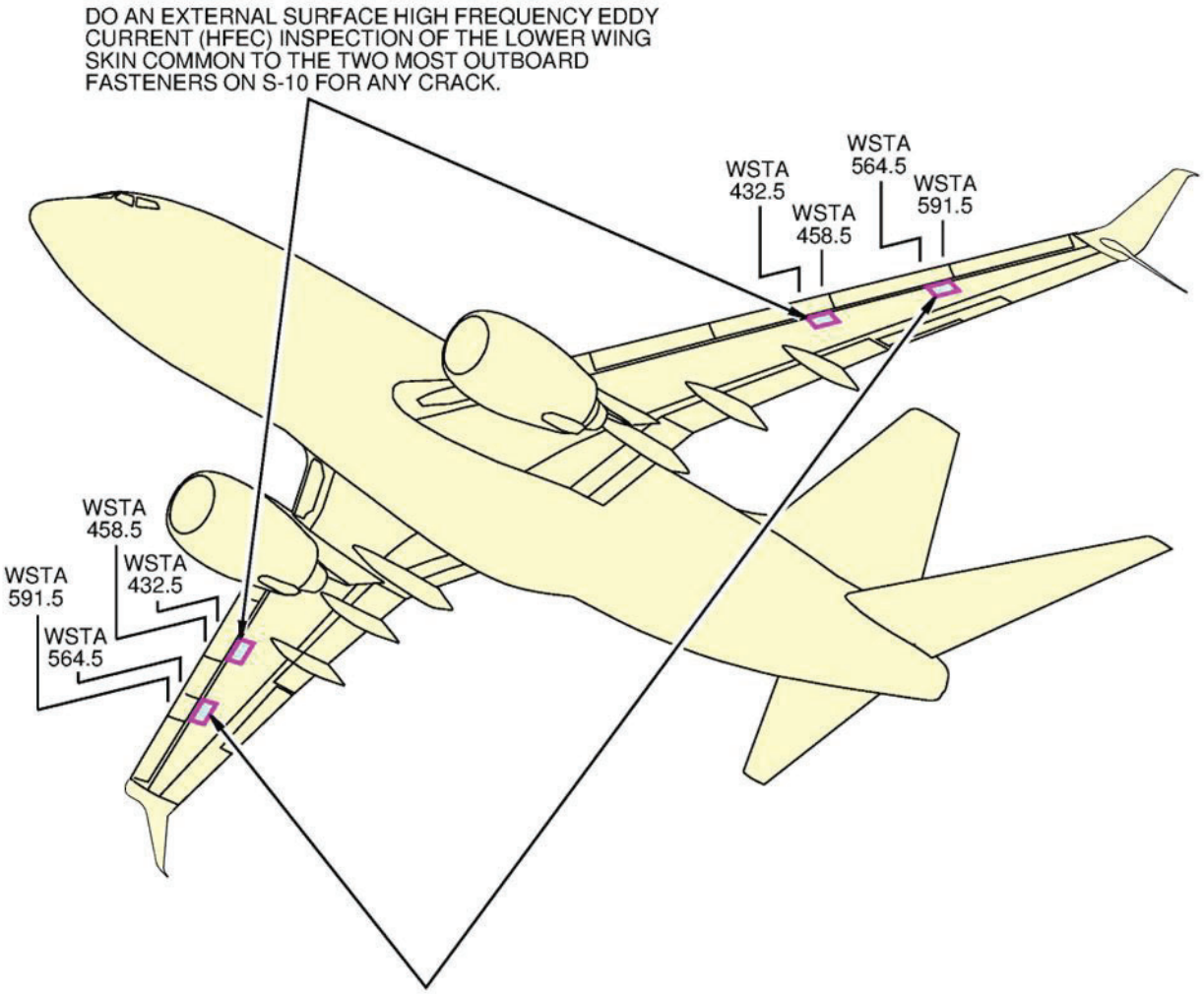
Aviation Partners Boeing warranty remedies are not available for the inspections, configuration changes, and/or repair procedures given in this service bulletin.

MANPOWER

Refer to Paragraph 1.G., Manpower.

MATERIAL INFORMATION

Operator Supplied Parts/Materials. Refer to Paragraph 2.A., Material – Price and Availability.


DO AN EXTERNAL SURFACE HIGH FREQUENCY EDDY CURRENT (HFEC) INSPECTION OF THE LOWER WING SKIN COMMON TO THE TWO MOST OUTBOARD FASTENERS ON S-10 FOR ANY CRACK.
WSTA 432.5
WSTA 564.5
WSTA 591.5
WSTA 458.5
WSTA 458.5
WSTA 432.5
WSTA 591.5
WSTA 564.5
DO AN EXTERNAL SURFACE HIGH FREQUENCY EDDY CURRENT (HFEC) INSPECTION OF THE LOWER WING SKIN COMMON TO THE TWO MOST OUTBOARD FASTENERS ON S-9 FOR ANY CRACK.

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1. PLANNING INFORMATION

A. Effectivity

1. Airplanes

This service bulletin is applicable to 737-700/-700C/-800/-900/-900ER airplanes provisioned for Split Scimitar Winglets and airplanes provisioned for Blended Winglets modified in accordance with STC ST00830SE per the table below.

GROUP	CONFIGURATION	DESCRIPTION
1	-	737-700/-800 Airplanes, Line Numbers 1-777 provisioned for the installation of Split Scimitar Winglets with Blended Winglets or Split Scimitar Winglets installed in accordance with STC ST00830SE.
2	-	737-700/-800 Airplanes, Line Numbers 778-99999 provisioned for the installation of Split Scimitar Winglets with Blended Winglets or Split Scimitar Winglets installed in accordance with STC ST00830SE.
3	-	737-900/-900ER Airplanes, Line Numbers 778-99999 provisioned for the installation of Split Scimitar Winglets with Blended Winglets or Split Scimitar Winglets installed in accordance with STC ST00830SE.
4	-	737-700 Airplanes with Variable Numbers YG001-YG039, YG061-YG075 provisioned for the installation of Blended Winglets with Blended Winglets or wing tips installed in accordance with STC ST00830SE.
5	-	737-700/-700C/-800 Airplanes with Variable Numbers YD401-YD403, YG040-YG044, YG076-YG103, YG111-YG123, YG701 provisioned for the installation of Blended Winglets with Blended Winglets or wing tips installed in accordance with STC ST00830SE.

2. Spares Affected

None.

B. Concurrent Requirements

None.

C. Reason

Accomplishment of this service bulletin will make sure any crack in the outboard lower wing skin, left and right side, common to the two most outboard fasteners at stringers S-9 and S-10, is found and repaired before reaching a critical length. If this service bulletin is not done, any crack that is not detected and corrected could cause the inability of the Principle Structural Element to sustain limit loads and subsequent loss of structural integrity.

737-800 operators reported crack findings at the identical fastener location on seven airplanes during routine maintenance inspections. The cracks were all located in the outboard lower wing skin at the outboard end of stringer S-9, common to the most outboard fastener. The cracks were found to extend in the forward and aft direction and ranged from 2 inches to 5 inches in length. The reported airplanes had accumulated between 20,602 to 30,150 flight cycles, and 41,777 to 77,993 flight hours, at the time of finding. Further analysis determined that stringer S-10 has an equivalent stress level to stringer S-9, and could also have early cracking.

This service bulletin gives instructions to do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any crack.

Boeing Service Related Problem (SRP) 737-NG-SRP-57-0399 is related to this service bulletin.

Boeing Fleet Team Digest (FTD) 737NG-FTD-57-22002 is related to this service bulletin.

D. Description

For Group 1 and Group 2 aircraft:

Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any repair.

1. If any repair is found:
    a. Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s) AND
    b. Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any crack at the unrepaired areas.
        (1) If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
        (2) If any crack is found, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
2. If no repair is found, do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.
    a. If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

b. If any crack is found at S-9:

(1) Do the repair available in this service bulletin if the crack damage can be removed entirely in accordance with FIGURE 7 or FIGURE 8 and repeat inspection in accordance with FIGURE 9 or FIGURE 10, respectively. Repeat inspection per FIGURE 11 or FIGURE 12, respectively.

(2) If crack damage cannot be removed by the standard repair available in this service bulletin, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringer S-9, left and right wing, for any crack.

c. If any crack is found at S-10 contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringer S-10, left and right wing, for any crack.

For Group 3, Group 4, and Group 5 aircraft:

Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any repair.

1. If any repair is found:

a. Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s) AND

b. Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left and right wing, for any crack at the unrepaired areas.

(1) If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

(2) If any crack is found, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

2. If no repair is found, do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

a. If no crack is found, repeat external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

b. If any crack is found, contact Aviation Partners Boeing for repair instructions and do the repair and repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at stringers S-9 and S-10, left and right wing, for any crack.

The work in this service bulletin is done in the maintenance zone(s) given below.

Group 1:

Affected Maintenance Zones	
Model	**Zone**
737-700, 737-800	532, 632

Group 2:

Affected Maintenance Zones	
Model	**Zone**
737-700, 737-800	532, 632

Group 3:

Affected Maintenance Zones	
Model	**Zone**
737-900, 737-900ER	532, 632

Group 4:

Affected Maintenance Zones	
Model	**Zone**
737-700	532, 632

Group 5:

Affected Maintenance Zones	
Model	**Zone**
737-700, 737-700C, 737-800	532, 632

E. Compliance

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in the service bulletin mandatory.

Accomplish the required action(s), based on the applicable condition(s) in Table 1 through Table 10, as applicable, in accordance with Accomplishment Instructions.

When more than one OPTION is given for a CONDITION, do only one of the OPTION numbers. When more than one ACTION is given for a CONDITION or an OPTION, do all of the ACTION numbers for that CONDITION or OPTION.

Group 1:

Table 1: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 1, left wing, for any repair	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 1: ANY REPAIR FOUND.	CONDITION 1 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 1 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 1.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 1.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 2: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 1:

Table 1: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 2.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, left wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 2.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 7 is applicable to the on plane crack condition.	Before further flight.	-
CONDITION 2.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 2.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 2.2.2 (ACTION 1): Do the crack removal and repair.	Before further flight.	-
	CONDITION 2.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	Within 3,000 flight cycles after doing the crack removal and skin repair.	3,000 Flight Cycles.
	CONDITION 2.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	Within 18,000 flight cycles after doing the crack removal and skin repair.	18,000 Flight Cycles.
CONDITION 2.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 2.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, left wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 2.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 1:

Table 2: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 2, right wing, for any repair.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 3: ANY REPAIR FOUND.	CONDITION 3 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 3 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 3.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 3.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 4: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 1:

Table 2: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 4.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, right wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 4.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 8 is applicable to the on plane crack condition.	Before further flight.	-
CONDITION 4.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 4.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 4.2.2 (ACTION 1): Do the crack removal and repair.	Before further flight.	-
	CONDITION 4.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	Within 3,000 flight cycles after doing the crack removal and skin repair.	3,000 Flight Cycles.
	CONDITION 4.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	Within 18,000 flight cycles after doing the crack removal and skin repair.	18,000 Flight Cycles.
CONDITION 4.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 4.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, right wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 4.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 2:

Table 3: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 1, left wing, for any repair.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 5: ANY REPAIR FOUND.	CONDITION 5 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 5 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 5.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 5.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 6: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 2:
Table 3: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 6.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, left wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 6.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 7 is applicable to the on plane crack condition.	Before further flight.	-
CONDITION 6.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 6.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 6.2.2 (ACTION 1): Do the crack removal and repair.	Before further flight.	-
	CONDITION 6.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	Within 3,000 flight cycles after doing the crack removal and skin repair.	3,000 Flight Cycles.
	CONDITION 6.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	Within 18,000 flight cycles after doing the crack removal and skin repair.	18,000 Flight Cycles.
CONDITION 6.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 6.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, left wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 6.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 2:

Table 4: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 2, right wing, for any repair.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 7: ANY REPAIR FOUND.	CONDITION 7 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 7 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 7.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 7.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 8: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 2:
Table 4: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 8.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, right wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 8.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 8 is applicable to the on plane crack condition.	Before further flight.	-
CONDITION 8.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 8.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 8.2.2 (ACTION 1): Do the crack removal and repair.	Before further flight.	-
	CONDITION 8.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	Within 3,000 flight cycles after doing the crack removal and skin repair.	3,000 Flight Cycles.
	CONDITION 8.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	Within 18,000 flight cycles after doing the crack removal and skin repair.	18,000 Flight Cycles.
CONDITION 8.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
CONDITION 8.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, right wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 8.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.			

Group 3:

Table 5: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any repair.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 9: ANY REPAIR FOUND.	CONDITION 9 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 9 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 9.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 9.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 10: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 3:

Table 5: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 10.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 10.2: ANY CRACK FOUND.	CONDITION 10.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
	CONDITION 10.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	3,000 Flight Cycles.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 3:

Table 6: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any repair.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 11: ANY REPAIR FOUND.	CONDITION 11 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 11 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 11.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 11.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 12: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 3:

Table 6: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 12.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 12.2: ANY CRACK FOUND.	CONDITION 12.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
	CONDITION 12.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	3,000 Flight Cycles.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 4:

Table 7: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any repair.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 13: ANY REPAIR FOUND.	CONDITION 13 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 13 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 13.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 13.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 14: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 4:

Table 7: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 14.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 14.2: ANY CRACK FOUND.	CONDITION 14.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
	CONDITION 14.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	3,000 Flight Cycles.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Group 4:

Table 8: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any repair.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 15: ANY REPAIR FOUND.	CONDITION 15 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 15 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 15.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-		3,000 Flight Cycles.
CONDITION 15.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 16: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	Whichever occurs first: 1. Before 20,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 500 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 4:

Table 8: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 16.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	-	3,000 Flight Cycles.
CONDITION 16.2: ANY CRACK FOUND.	CONDITION 16.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
	CONDITION 16.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	3,000 Flight Cycles.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Group 5:

Table 9: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any repair.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 17: ANY REPAIR FOUND.	CONDITION 17 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 17 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 17.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-		3,600 Flight Cycles.
CONDITION 17.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 18: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 5:

Table 9: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 18.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	-	3,600 Flight Cycles.
CONDITION 18.2: ANY CRACK FOUND.	CONDITION 18.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
	CONDITION 18.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	3,600 Flight Cycles.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Group 5:

Table 10: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)		Repeat Interval (Not to Exceed)
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any repair.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours.	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 19: ANY REPAIR FOUND.	CONDITION 19 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s), and do the alternative inspection(s) and applicable on-condition corrective action(s).	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
	CONDITION 19 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-
CONDITION 19.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-		3,600 Flight Cycles.
CONDITION 19.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.		-
CONDITION 20: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	Whichever occurs first: 1. Before 25,000 Total Flight Cycles. 2. Before 40,000 Total Flight Hours	Within 3,000 Flight Cycles after the Original Issue date of Service Bulletin AP737-57-022.	-

Group 5:

Table 10: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Compliance Time (Whichever Occurs Later)	Repeat Interval (Not to Exceed)
CONDITION 20.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	-	3,600 Flight Cycles.
CONDITION 20.2: ANY CRACK FOUND.	CONDITION 20.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	Before further flight.	-
	CONDITION 20.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	3,600 Flight Cycles.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

F. Approval

This service bulletin was examined by the Federal Aviation Administration (FAA). The changes specified in this service bulletin comply with the applicable regulations and are FAA approved. This service bulletin and its approval were based on the airplane as modified by Aviation Partners Boeing (APB) winglet retrofit in accordance with FAA STC ST00830SE.

If an airplane has a non-Boeing modification, non-APB modification, or a repair that affects a component or system also affected by this service bulletin, the operator is responsible for obtaining appropriate regulatory agency approval before incorporating this service bulletin.

This service bulletin is also approved for airplanes converted into 737-800BCF under project number TS14-0042.

The manager of the Continued Operational Safety Branch has reviewed and approves the incorporation of the post-repair supplemental inspections defined in this service bulletin as an Alternate Method of Compliance (AMOC) to the inspection requirements specified in paragraph (g)(1) of AD 2013-19-23 for PSEs 57-20-01/02/03/04/05/08-4 and 57-20-04-1 common to the repair area only. All provisions of AD 2013-19-23 that are not specifically referenced above remain fully applicable and must be complied with accordingly.

G. Manpower

The tables below show an estimate of the task hours necessary to do the inspections for each wing of the airplane. This estimate is for direct labor only, done by an experienced crew. Adjust the estimate with operator task hour data if necessary. The estimate does not include lost time. These are some examples of lost time:

- Time to adjust to the workplace
- Time to schedule the work
- Time to inspect the work
- Time to cure the materials
- Time to make the parts
- Time to find the tools

Table 1: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	0.08	0.08
FIGURE 1	1	0.20	0.20
FIGURE 3	1	0.70	0.70
FIGURE 4	1	0.70	0.70
Close Access	1	0.08	0.08
TOTAL FOR LEFT WING		1.76	1.76

Table 2: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	0.08	0.08
FIGURE 2	1	0.20	0.20
FIGURE 5	1	0.70	0.70
FIGURE 6	1	0.70	0.70
Close Access	1	0.08	0.08
TOTAL FOR RIGHT WING		1.76	1.76

Table 3: Repair of the Outboard Lower Wing Skin Left Wing at Stringer S-9

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	1	1
FIGURE 7	2	52	26
Close Access	1	1	1
TOTAL FOR LEFT WING		54	28

Table 4: Repair of the Outboard Lower Wing Skin Right Wing at Stringer S-9

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	1	1
FIGURE 8	2	52	26
Close Access	1	1	1
TOTAL FOR RIGHT WING		54	28

Table 5: External Inspection of the Outboard Lower Wing Skin Left Wing Repair at Stringer S-9

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	0.2	0.2
FIGURE 9	1	1.5	1.5
Close Access	1	0.2	0.2
TOTAL FOR LEFT WING		1.9	1.9

Table 6: External Inspection of the Outboard Lower Wing Skin Right Wing Repair at Stringer S-9

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	0.2	0.2
FIGURE 10	1	1.5	1.5
Close Access	1	0.2	0.2
TOTAL FOR RIGHT WING		1.9	1.9

Table 7: Internal Inspection of the Outboard Lower Wing Skin Left Wing Repair at Stringer S-9

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	1	1
FIGURE 11	1	2	2
Close Access	1	1	1
TOTAL FOR LEFT WING		4	4

Table 8: Internal Inspection of the Outboard Lower Wing Skin Right Wing Repair at Stringer S-9

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	1	1
FIGURE 12	1	2	2
Close Access	1	1	1
TOTAL FOR RIGHT WING		4	4

H. Weight and Balance Changes

Airplane	SB Figure Contributing to Weight Change	Change in Weight (pounds)	Change in Moment (pound-inch)
737-700	FIGURE 7	+9.5	+7410
737-700	FIGURE 8	+9.5	+7410
737-800	FIGURE 7	+9.5	+7410
737-800	FIGURE 8	+9.5	+7410
737-700	FIGURE 7 + FIGURE 8	+19.0	+14820
737-800	FIGURE 7 + FIGURE 8	+19.0	+14820

I. Electrical Load Data

Not changed.

J. References

1. Existing Data:
   a. Boeing Service Letter 737-SL-51-042
   b. Boeing Service Related Problem (SRP) 737-NG-SRP-57-0399
   c. Standard Overhaul Practices Manual (SOPM) 20-10-03, 20-50-00, 20-50-11, 20-43-03, 20-44-04
   d. Boeing Aircraft Maintenance Manual (AMM) 20-44-04, 24-22-00, 28-26-00, 28-11-00, 28-11-11, 51-21-00
   e. Boeing Fleet Team Digest (FTD) 737NG-FTD-57-22002
   f. Boeing 737NG Structural Repair Manual (SRM)
   g. Boeing 737 Non-Destructive Testing (NDT) Manual Part 4, and Part 6
2. Data Supplied with this Service Bulletin:

   None.
3. Installation Drawings Used in the Preparation of this Service Bulletin:

Drawing Number	Title
112A2001	FASTENER INSTL – FRONT SPAR/WING SKIN INTERFACE
112A4001	PANEL INSTL – LOWER, SECTION 12, WING
110A1504	WING STRINGER DIAGRAM, LOWER 737-X
737-7400	MOD INSTL – FATIGUE LIFE IMPROVEMENT LOWER SKIN
737-8400	MOD INSTL – FATIGUE LIFE IMPROVEMENT LOWER SKIN

The table above lists applicable drawing(s) used to prepare this service bulletin. The drawing(s) are not necessary to make the specified changes, and are not supplied with this service bulletin. The drawing(s) may not be applicable to all airplane configurations or operators.

K. Publications Affected

1. Publications

   None.

2. Damage Tolerance Based Structural Inspections:

   Aviation Partners Boeing has evaluated the repairs and/or changes in this service bulletin for effects on Fatigue Critical Structure (FCS) and for changes to Damage Tolerance Inspections (DTI) required in the Maintenance Program. This service bulletin affects FCS, but no new DTIs are necessary.

L. Interchangeability and Intermixability of Parts

Accomplishment of this service bulletin does not affect interchangeability or intermixability of parts.

M. Software Accomplishment Summary

Not affected.

2. MATERIAL INFORMATION

A. Material – Price and Availability

None.

B. Industry Support Information

Aviation Partners Boeing (APB) warranty remedies are not available for the inspection and/or repair procedures given in this service bulletin.

C. Parts Necessary for Each Airplane

1. Kits/Parts

   None.

2. Parts and Materials Supplied by the Operator:

Material/Part No.	Description	QTY per Wing	QTY per SS
2024-T3 bare sheet per AMS-QQ-A-250/4 .125 x 36 x 14	Doubler*	1	2
2024-T3 bare sheet per AMS-QQ-A-250/4 .125 x 30 x 14	Tripler*	1	2
2024-T3 bare sheet per AMS-QQ-A-250/4	Filler**	1	2
BACB30LX6A9	Hex Drive Bolt – Oversize	2	4
BACB30LX6A10	Hex Drive Bolt – Oversize	4	8
BACB30LX6A11	Hex Drive Bolt – Oversize	48	96
BACB30LX6A12	Hex Drive Bolt – Oversize	3	6
BACC30BH6	Collar – Tension	61	122
BACB30LX6A13	Hex Drive Bolt – Oversize	4	8
BACB30NW10K7X	Hex Drive Bolt – Oversize	4	8
BACB30NW10K8X	Hex Drive Bolt – Oversize	19	38
BACB30NW10K9X	Hex Drive Bolt – Oversize	14	28
BACN10WM5	Nut – Self Sealing	37	74

Material/Part No.	Description	QTY per Wing	QTY per SS
BACB30NW8K8X	Hex Drive Bolt – Oversize	2	4
BACB30NW8K9X	Hex Drive Bolt – Oversize	39	78
BACB30NW8K10X	Hex Drive Bolt – Oversize	11	22
BACN10WM4	Nut – Self Sealing	52	104
BACB30NW8K4	Hex Drive Bolt	2	4
BACB30NW8K6	Hex Drive Bolt	15	30
BACB30NW8K8	Hex Drive Bolt	16	32
BACN10WM4	Nut – Self Sealing	33	66
BACB30WQ4K6L	Radius Lead-in Bolt	3	6
BACN10TN4K	Nut – Self Sealing	3	6
BACB30WQ3K9L†	Radius Lead-in Bolt	-	-
BACB30WQ3K10L†	Radius Lead-in Bolt	-	-
BACB30WQ3K11L†	Radius Lead-in Bolt	-	-
BACB30WQ3K12L†	Radius Lead-in Bolt	-	-
BACB30WQ3K9LX†	Radius Lead-in Bolt – Oversize	-	-
BACB30WQ3K10LX†	Radius Lead-in Bolt – Oversize	-	-
BACB30WQ3K11LX†	Radius Lead-in Bolt – Oversize	-	-
BACB30WQ3K12LX†	Radius Lead-in Bolt – Oversize	-	-
BACN10TN3K†	Nut – Self Sealing	-	-
BACN10HY3M†	Nut – Self Locking	-	-
BACW10AW3AST†	Washer – Oversize	-	-
BACB30LY6A13†	Hex Drive Bolt – Second Oversize	-	-
BACC30AC6†	Collar – Tension	-	-
BMS10-79, TYPE III	PRIMER	-	-
BMS10-20 TYPE II	PRIMER	-	-
BMS10-60 TYPE II	ENAMEL	-	-

Material/Part No.	Description	QTY per Wing	QTY per SS
BONDERITE M-CR 600 AERO	CHEMICAL COATING	-	-
BMS5-45	SEALANT	-	-
BMS5-95†	SEALANT	-	-
BMS5-142	SEALANT	-	-

* Material dimensions include excess material, trim as required.

** Stock thickness of bare sheet shall be determined by the thickness of the lower skin panel in the area of the trim out as shown in Figure 7 and Figure 8, (Sheet 4 of 11).

† These parts are considered alternate hardware options and may not be required for completing the repair actions in this service bulletin. Confirm if these parts are required and/or eligible for use before ordering. See Figure 7 and Figure 8, (Sheet 10 of 11), fastener code 'A' and 'B', notes (d) and (e), for more information.

3. Parts Modified and Re-identified.

   None.

4. Parts Removed and Not Replaced

   None

D. Parts Necessary to Change Spares

None.

E. Special Tooling – Price Availability

None.

F. Special Tooling Necessary to do this Service Bulletin

No special tools or equipment are necessary to do the change in this service bulletin. But, maintenance and overhaul tools in the manuals given in Paragraph 1.J., References, can be necessary. Examine operator tool supply to make sure all necessary tools are available.

3. ACCOMPLISHMENT INSTRUCTIONS

A. GENERAL INFORMATION



CAUTION

KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE.

NOTE:

1. If this Service Bulletin (SB) is mandated by an Airworthiness Directive (AD), then all applicable requirements specified in the SB must be done. Therefore, an Alternative Method of Compliance (AMOC) is required for any deviations to the steps in this service bulletin, including sub-steps and identified figures.
2. The compliance times for the actions in WORK INSTRUCTIONS are in 1.E., Compliance.
3. Unless shown differently, these dimensions and tolerances are used:
   - Linear dimensions are in inches
   - Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch
   - Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch
   - Angular tolerance is plus or minus 2 degrees
   - Hole dimensions for standard solid rivets and fasteners are in Structural Repair Manual (SRM) Chapter 51

   – Torque Values:

   - Values for structural fasteners are given in 737 Structural Repair Manual, Chapter 51.
   - Values for airframe maintenance tasks are included in Chapter 20 of 737 Aircraft Maintenance Manual (AMM).
   - Values for electrical maintenance tasks are included in Chapter 20 of Standard Wiring Practices Manual (SWPM).
   - Values for engine maintenance tasks are included in Chapter 70 of 737 Aircraft Maintenance Manual (AMM).
   - Non-standard torque values for maintenance tasks are included in the applicable installation step.
4. These work instructions refer to procedures included in other Boeing documents. When the words "refer to" are used and the operator has an accepted alternative procedure, the accepted alternative procedure can be used. When the words "in accordance with" are included in the instruction, the procedure in the Boeing document must be used.
5. If it is necessary to remove more parts for access, you can remove those parts. If you can get access without removing identified parts, it is not necessary to remove all of the identified parts. Jacking and shoring limitations must be observed.
6. Use approved fastener, process and material substitutions in accordance with SRM Chapter 51.

7. A General Visual Inspection (GVI) is defined as: A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance, unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.
8. When more than one OPTION is given for a CONDITION, do only one of the OPTION numbers. When more than one ACTION is given for a CONDITION or an OPTION, do all of the ACTION numbers for that CONDITION or OPTION.
9. Use of colors in Figures is based on guidance from the ATA e-Business Program (ATA) iSpec 2200.
10. Manual titles are referred to by acronyms. Refer to Paragraph 1.J., References, for definition of the acronyms.
11. Obey all of the warnings and cautions given in the specified manual sections.
12. Refer to APPENDIX A, APPENDIX B, APPENDIX C, APPENDIX D, APPENDIX E, APPENDIX F, APPENDIX G, APPENDIX H, APPENDIX I, and APPENDIX J of Service Bulletin AP737-57-022 for logic diagrams. Logic diagrams are provided as an aid only. Information contained in 1.E., Compliance is the primary source for compliance times. Information in Work Instructions of this service bulletin is the primary source for tasks required for compliance.
13. If the length of any fastener specified in this service bulletin does not meet installation standards given in 737NG SRM Chapter 51, then a fastener of the same specification with a length which meets the installation standards given in SRM 51-40-02 may be used. In addition, washers may be installed for fastener grip length in accordance with SRM 51-40-02. Do not use washers under BACN10TN and BACN10WM seal nuts.
14. The repair actions in this service bulletin shall meet lightning, electrical wiring and equipment fault current, and electrostatic discharge requirements in 737NG SRM 51-80-01.
15. Basic cleaning may be required to ensure appropriate visibility.

B. WORK INSTRUCTIONS

Actions Required for Compliance

1. Requirements.

Group 1
Table 1: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 1, left wing, for any repair.	-	Do PART 1: OPEN ACCESS - LEFT WING.
		FIGURE 1	-
CONDITION 1: ANY REPAIR FOUND.	CONDITION 1 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 1 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	FIGURE 3 and FIGURE 4	-
CONDITION 1.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-
CONDITION 1.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 2: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	FIGURE 3 and FIGURE 4	-
CONDITION 2.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, left wing, for any crack.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3	-

Group 1
Table 1: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 2.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 7 is applicable to the on plane crack condition.	-	-
CONDITION 2.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING
CONDITION 2.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 2.2.2 (ACTION 1): Do the crack removal and repair.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 7	-
	CONDITION 2.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 9	-
	CONDITION 2.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 11	-
CONDITION 2.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 2.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, left wing, for any crack.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 4	-
CONDITION 2.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 1
Table 2: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 2, right wing, for any repair.	-	Do PART 2: OPEN ACCESS - RIGHT WING.
		FIGURE 2	-
CONDITION 3: ANY REPAIR FOUND.	CONDITION 3 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 3 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	FIGURE 5 and FIGURE 6	-
CONDITION 3.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-
CONDITION 3.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 4: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	FIGURE 5 and FIGURE 6	-
CONDITION 4.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, right wing, for any crack.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5	-

Group 1
Table 2: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 4.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 8 is applicable to the on plane crack condition.	-	-
CONDITION 4.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING
CONDITION 4.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 4.2.2 (ACTION 1): Do the crack removal and repair.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 8	-
	CONDITION 4.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 10	-
	CONDITION 4.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 12	-
CONDITION 4.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 4.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, right wing, for any crack.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 6	-
CONDITION 4.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 2

Table 3: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 1, left wing, for any repair.	-	Do PART 1: OPEN ACCESS - LEFT WING.
		FIGURE 1	-
CONDITION 5: ANY REPAIR FOUND.	CONDITION 5 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 5 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	FIGURE 3 and FIGURE 4	-
CONDITION 5.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-
CONDITION 5.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 6: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	FIGURE 3 and FIGURE 4	-
CONDITION 6.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, left wing, for any crack.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3	-

Group 2

Table 3: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 6.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 7 is applicable to the on plane crack condition.	-	-
CONDITION 6.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING
CONDITION 6.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 6.2.2 (ACTION 1): Do the crack removal and repair.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 7	-
	CONDITION 6.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 9	-
	CONDITION 6.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 11	-
CONDITION 6.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 6.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, left wing, for any crack.	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 4	-
CONDITION 6.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 2

Table 4: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at S-9 and S-10 in the area defined by FIGURE 2, right wing, for any repair.	-	Do PART 2: OPEN ACCESS - RIGHT WING.
		FIGURE 2	-
CONDITION 7: ANY REPAIR FOUND.	CONDITION 7 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 7 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	FIGURE 5 and FIGURE 6	-
CONDITION 7.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-
CONDITION 7.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 8: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	FIGURE 5 and FIGURE 6	-
CONDITION 8.1: NO CRACK FOUND AT S-9.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5	-

Group 2

Table 4: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 8.2: ANY CRACK FOUND AT S-9.	Verify if the skin cutout and repair action in FIGURE 8 is applicable to the on plane crack condition.	-	-
CONDITION 8.2.1: ANY CRACK OUTSIDE OF THE BOUNDARY OF THE SKIN CUTOUT.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING
CONDITION 8.2.2: ANY CRACK WITHIN THE BOUNDARY OF THE SKIN CUTOUT.	CONDITION 8.2.2 (ACTION 1): Do the crack removal and repair.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 8	-
	CONDITION 8.2.2 (ACTION 2): Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin under the repair doubler and an external surface HFEC inspection of the outboard lower wing skin at the periphery of the repair doubler.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 10	-
	CONDITION 8.2.2 (ACTION 3): Do an internal surface HFEC inspection of the S-8 and S-9 skin flange, internal surface HFEC inspection of the visible front spar chord, and Ultrasonic Testing (UT) inspection of the hidden front spar chord.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 12	-
CONDITION 8.2.2.1: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 8.3: NO CRACK FOUND AT S-10.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-10, right wing, for any crack.	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 6	-
CONDITION 8.4: ANY CRACK FOUND AT S-10.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 3

Table 5: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any repair.	-	Do PART 1: OPEN ACCESS - LEFT WING.
		FIGURE 1	-
CONDITION 9: ANY REPAIR FOUND.	CONDITION 9 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 9 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	FIGURE 3 and FIGURE 4	-
CONDITION 9.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-
CONDITION 9.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 10: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	FIGURE 3 and FIGURE 4	-
CONDITION 10.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-

Group 3

Table 5: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 10.2: ANY CRACK FOUND.	CONDITION 10.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
	CONDITION 10.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 3

Table 6: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any repair.	-	Do PART 2: OPEN ACCESS - RIGHT WING.
		FIGURE 2	-
CONDITION 11: ANY REPAIR FOUND.	CONDITION 11 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 11 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	FIGURE 5 and FIGURE 6	-
CONDITION 11.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-
CONDITION 11.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 12: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	FIGURE 5 and FIGURE 6	-
CONDITION 12.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-

Group 3

Table 6: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 12.2: ANY CRACK FOUND.	CONDITION 12.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
	CONDITION 12.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

Group 4

Table 7: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any repair.	-	Do PART 1: OPEN ACCESS - LEFT WING.
		FIGURE 1	-
CONDITION 13: ANY REPAIR FOUND.	CONDITION 13 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 13 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	FIGURE 3 and FIGURE 4	-
CONDITION 13.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-
CONDITION 13.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 14: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	FIGURE 3 and FIGURE 4	-
CONDITION 14.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-

Group 4

Table 7: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 14.2: ANY CRACK FOUND.	CONDITION 14.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
	CONDITION 14.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Group 4

Table 8: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any repair.	-	Do PART 2: OPEN ACCESS - RIGHT WING.
		FIGURE 2	-
CONDITION 15: ANY REPAIR FOUND.	CONDITION 15 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 15 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	FIGURE 5 and FIGURE 6	-
CONDITION 15.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-
CONDITION 15.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 16: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	FIGURE 5 and FIGURE 6	-
CONDITION 16.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-

Group 4

Table 8: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 16.2: ANY CRACK FOUND.	CONDITION 16.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
	CONDITION 16.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Group 5

Table 9: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any repair.	-	Do PART 1: OPEN ACCESS - LEFT WING.
		FIGURE 1	-
CONDITION 17: ANY REPAIR FOUND.	CONDITION 17 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 17 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack at the unrepaired areas.	FIGURE 3 and FIGURE 4	-
CONDITION 17.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-
CONDITION 17.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
CONDITION 18: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack.	FIGURE 3 and FIGURE 4	-
CONDITION 18.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-

Group 5

Table 9: Inspection of the Outboard Lower Wing Skin Left Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 18.2: ANY CRACK FOUND.	CONDITION 18.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 3: CLOSE ACCESS - LEFT WING.
	CONDITION 18.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, left wing, for any crack. (a)	-	Do PART 3: CLOSE ACCESS - LEFT WING.
		FIGURE 3 and FIGURE 4	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Group 5

Table 10: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
All Airplanes.	Do an external general visual inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any repair.	-	Do PART 2: OPEN ACCESS - RIGHT WING.
		FIGURE 2	-
CONDITION 19: ANY REPAIR FOUND.	CONDITION 19 (ACTION 1): Contact Aviation Partners Boeing for alternative inspection(s) and corrective action instruction(s) and do the alternative inspection(s) and applicable on-condition corrective action(s).	-	-
	CONDITION 19 (ACTION 2): Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack at the unrepaired areas.	FIGURE 5 and FIGURE 6	-
CONDITION 19.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-
CONDITION 19.2: ANY CRACK FOUND.	Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
CONDITION 20: NO REPAIR FOUND.	Do an external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack.	FIGURE 5 and FIGURE 6	-
CONDITION 20.1: NO CRACK FOUND.	Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-

Group 5

Table 10: Inspection of the Outboard Lower Wing Skin Right Wing at Stringers S-9 and S-10

Condition	Action	Method of Compliance	Refer to the listed procedures in AP737-57-022 original issue or later approved revisions as an accepted procedure
CONDITION 20.2: ANY CRACK FOUND.	CONDITION 20.2 (ACTION 1): Contact Aviation Partners Boeing for repair instructions and do the repair.	-	-
		-	Do PART 4: CLOSE ACCESS - RIGHT WING.
	CONDITION 20.2 (ACTION 2): Repeat the external surface HFEC inspection of the outboard lower wing skin at the two most outboard fasteners at S-9 and S-10, right wing, for any crack. (a)	-	Do PART 4: CLOSE ACCESS - RIGHT WING.
		FIGURE 5 and FIGURE 6	-

(a) It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow:

1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND
2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

Procedures

1. PART 1: OPEN ACCESS – LEFT WING

    a. Get access to the external surface of the outboard lower wing skin at S-9, between WSTA 564.5 and 591.5, on the left wing.

        (1) Use a ladder, work platform or maintenance platform to gain access, as necessary.

    b. Get access to the external surface of the outboard lower wing skin at S-10, between WSTA 432.5 and 458.5, on the left wing.

        (1) Use a ladder, work platform or maintenance platform to gain access, as necessary.

2. PART 2: OPEN ACCESS – RIGHT WING

    a. Get access to the external surface of the outboard lower wing skin at S-9, between WSTA 564.5 and 591.5, on the right wing.

        (1) Use a ladder, work platform or maintenance platform to gain access, as necessary.

    b. Get access to the external surface of the outboard lower wing skin at S-10, between WSTA 432.5 and 458.5, on the right wing.

        (1) Use a ladder, work platform or maintenance platform to gain access, as necessary.

3. PART 3: CLOSE ACCESS – LEFT WING

    a. Close access to the external surface of the outboard lower wing skin at S-9, between WSTA 564.5 and 591.5, on the left wing.

    b. Close access to the external surface of the outboard lower wing skin at S-10, between WSTA 432.5 and 458.5, on the left wing.

    c. Put the airplane back to a serviceable condition.

4. PART 4: CLOSE ACCESS – RIGHT WING

    a. Close access to the external surface of the outboard lower wing skin at S-9, between WSTA 564.5 and 591.5, on the right wing.

    b. Close access to the external surface of the outboard lower wing skin at S-10, between WSTA 432.5 and 458.5, on the right wing.

    c. Put the airplane back to a serviceable condition.

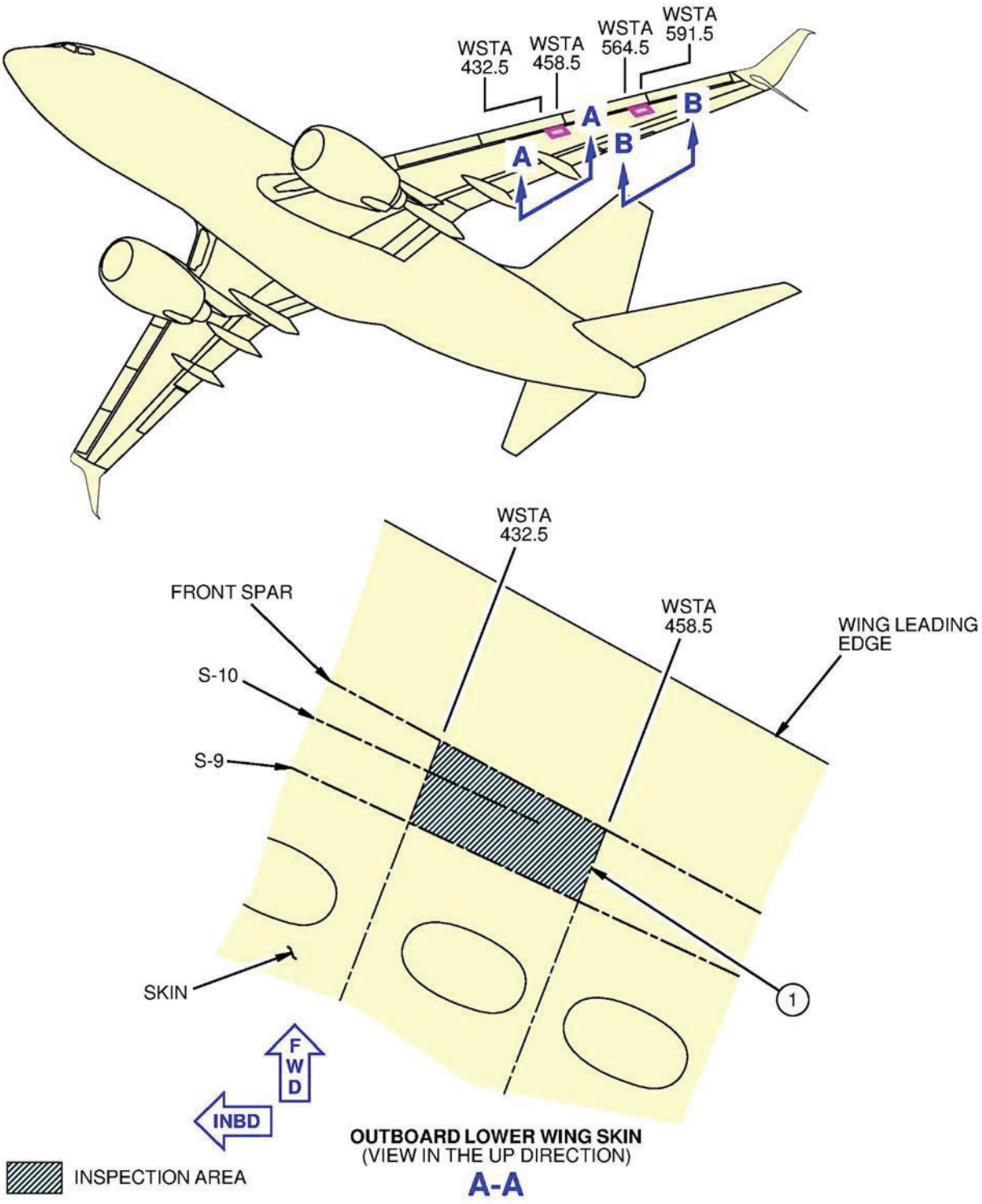
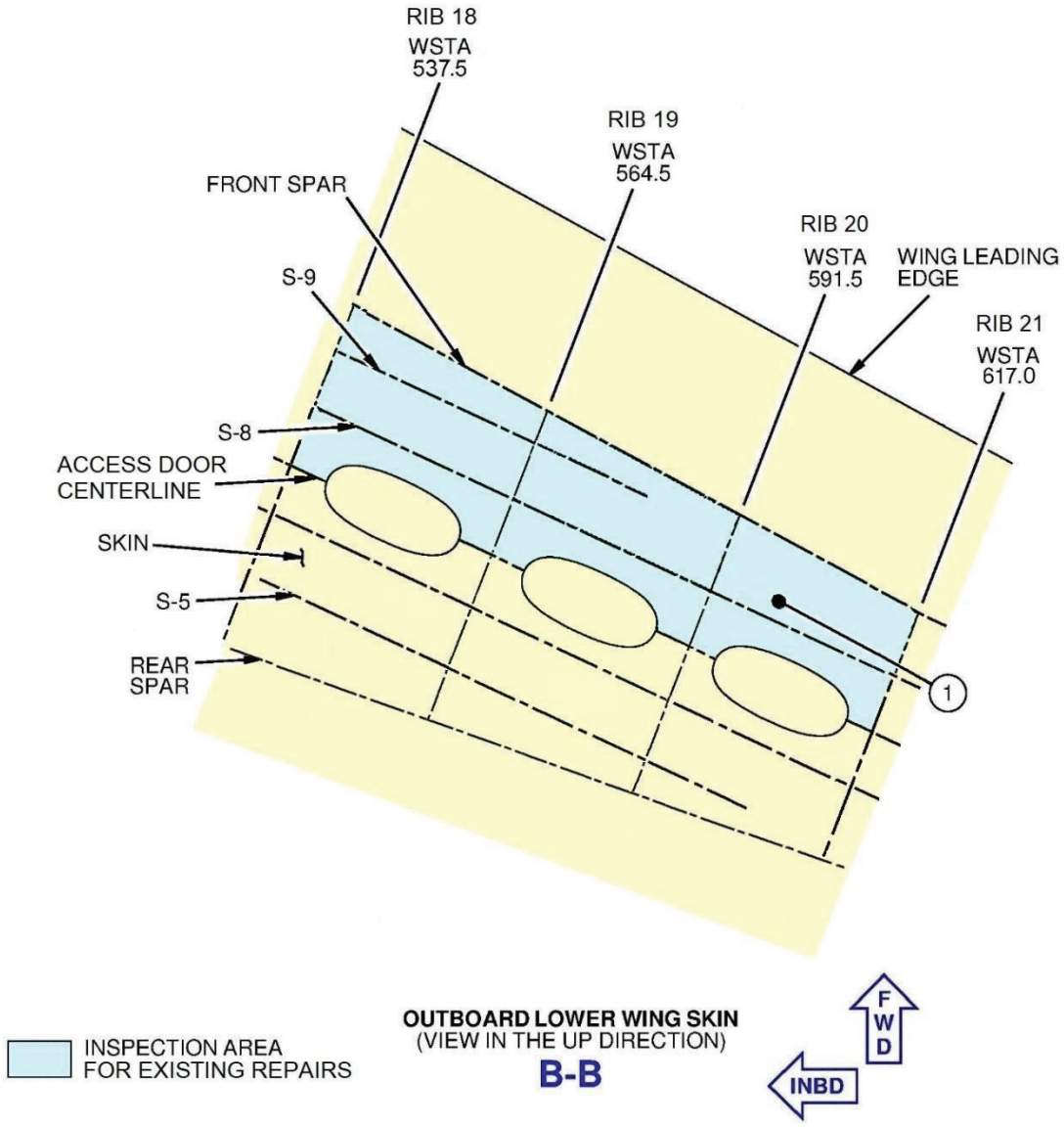


FIGURE 1: LEFT WING – OUTBOARD LOWER WING SKIN AT STRINGERS S-9 AND S-10 - EXTERNAL GENERAL VISUAL INSPECTION
(SHEET 1 OF 2)



The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
(a) Do an external general visual inspection of the outboard lower wing skin for any repair.					

FIGURE 1: LEFT WING – OUTBOARD LOWER WING SKIN AT STRINGERS S-9 AND S-10 - EXTERNAL GENERAL VISUAL INSPECTION
(SHEET 2 OF 2)

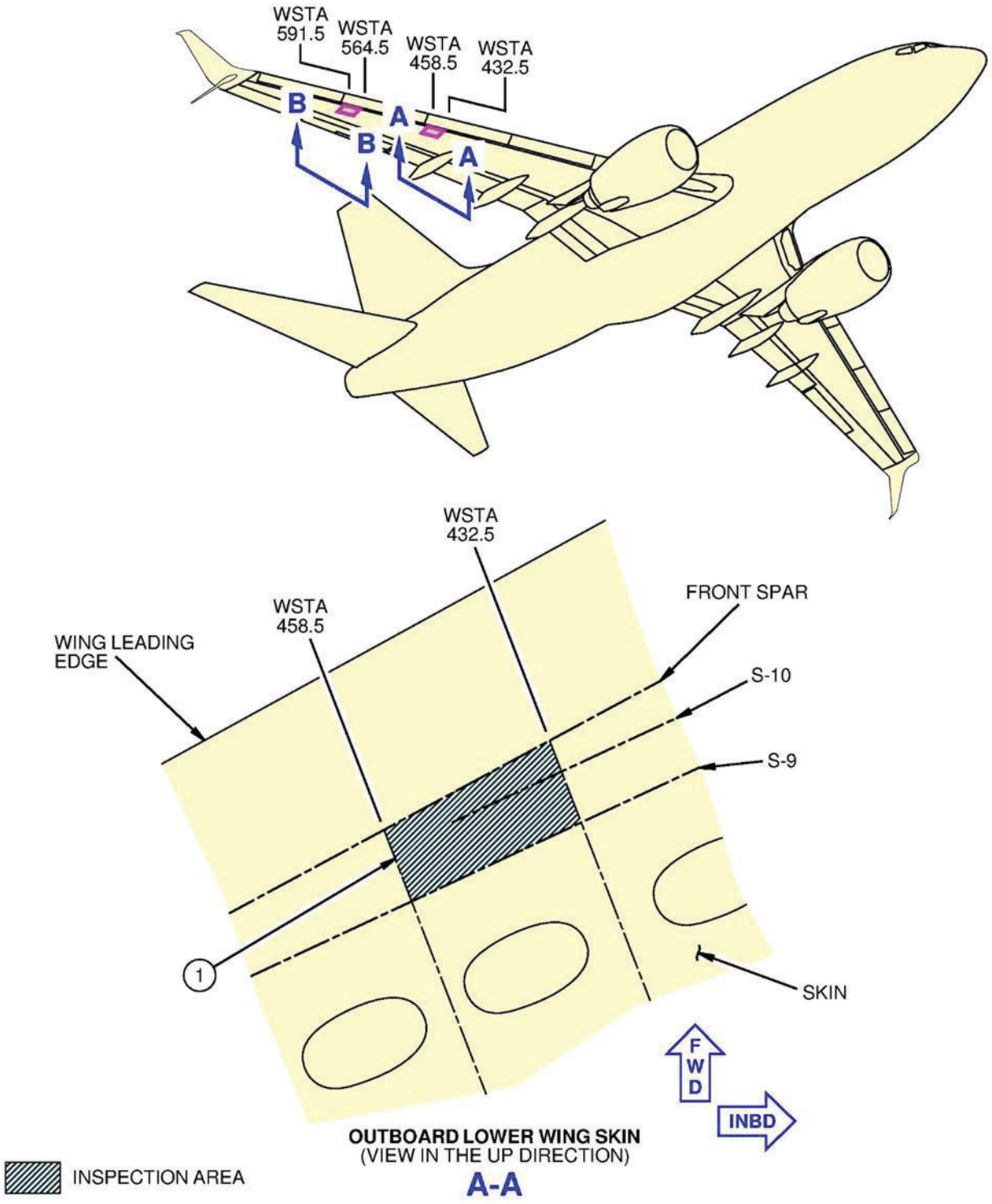
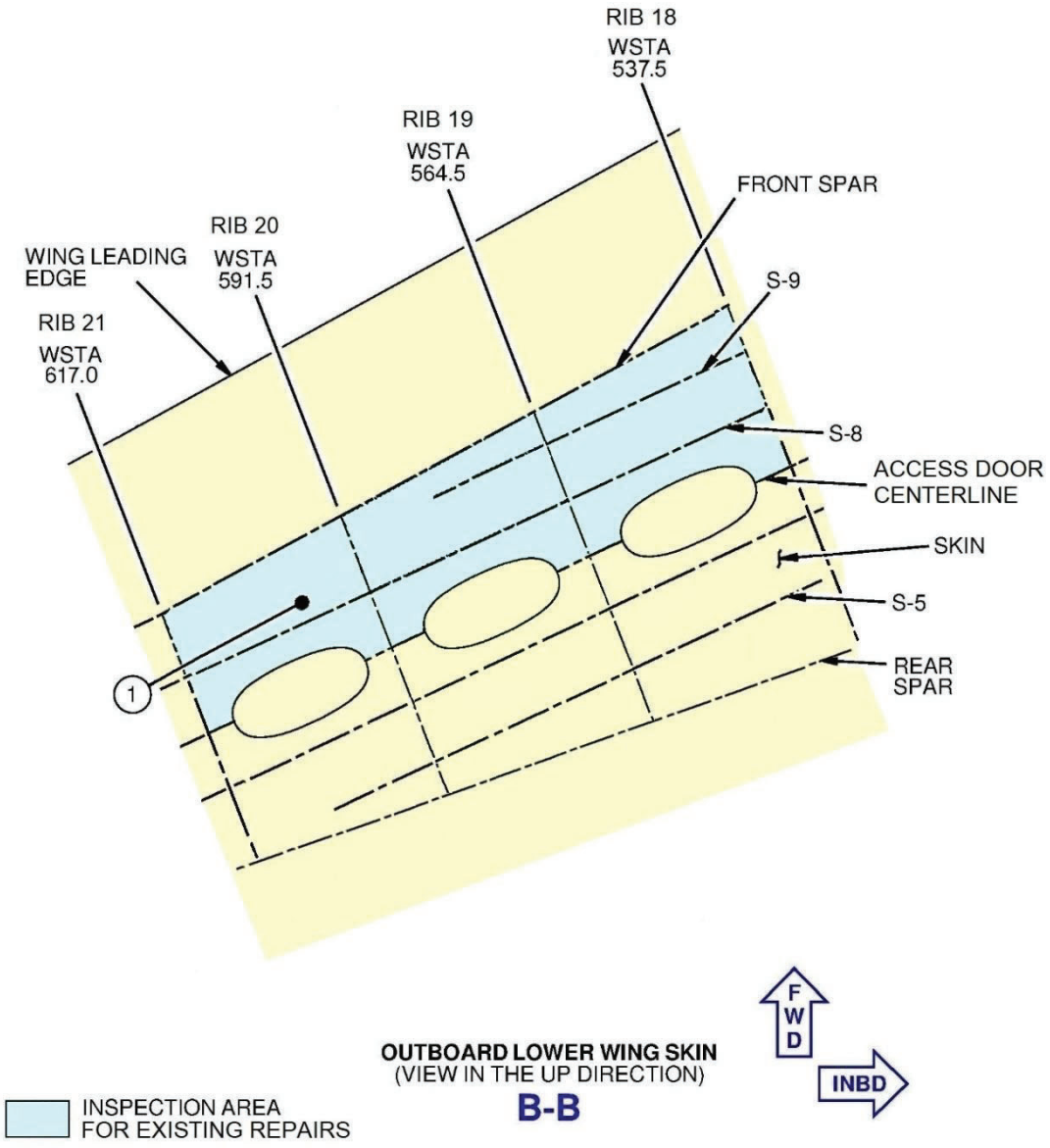


FIGURE 2: RIGHT WING – OUTBOARD LOWER WING SKIN AT STRINGERS S-9 AND S-10 - EXTERNAL GENERAL VISUAL INSPECTION
(SHEET 1 OF 2)



The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
(a) Do an external general visual inspection of the outboard lower wing skin for any repair.					

FIGURE 2: RIGHT WING – OUTBOARD LOWER WING SKIN AT STRINGERS S-9 AND S-10 - EXTERNAL GENERAL VISUAL INSPECTION
(SHEET 2 OF 2)

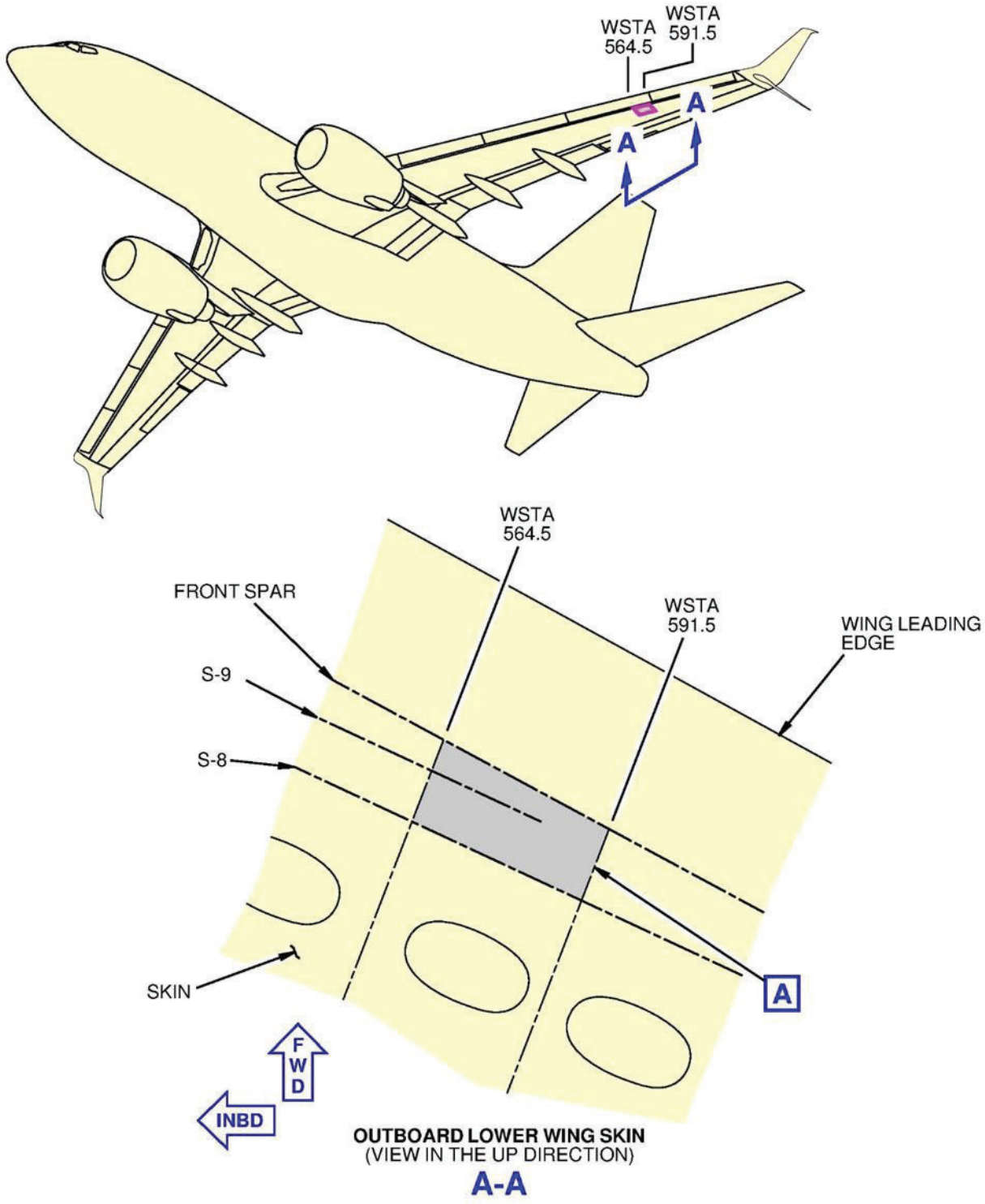
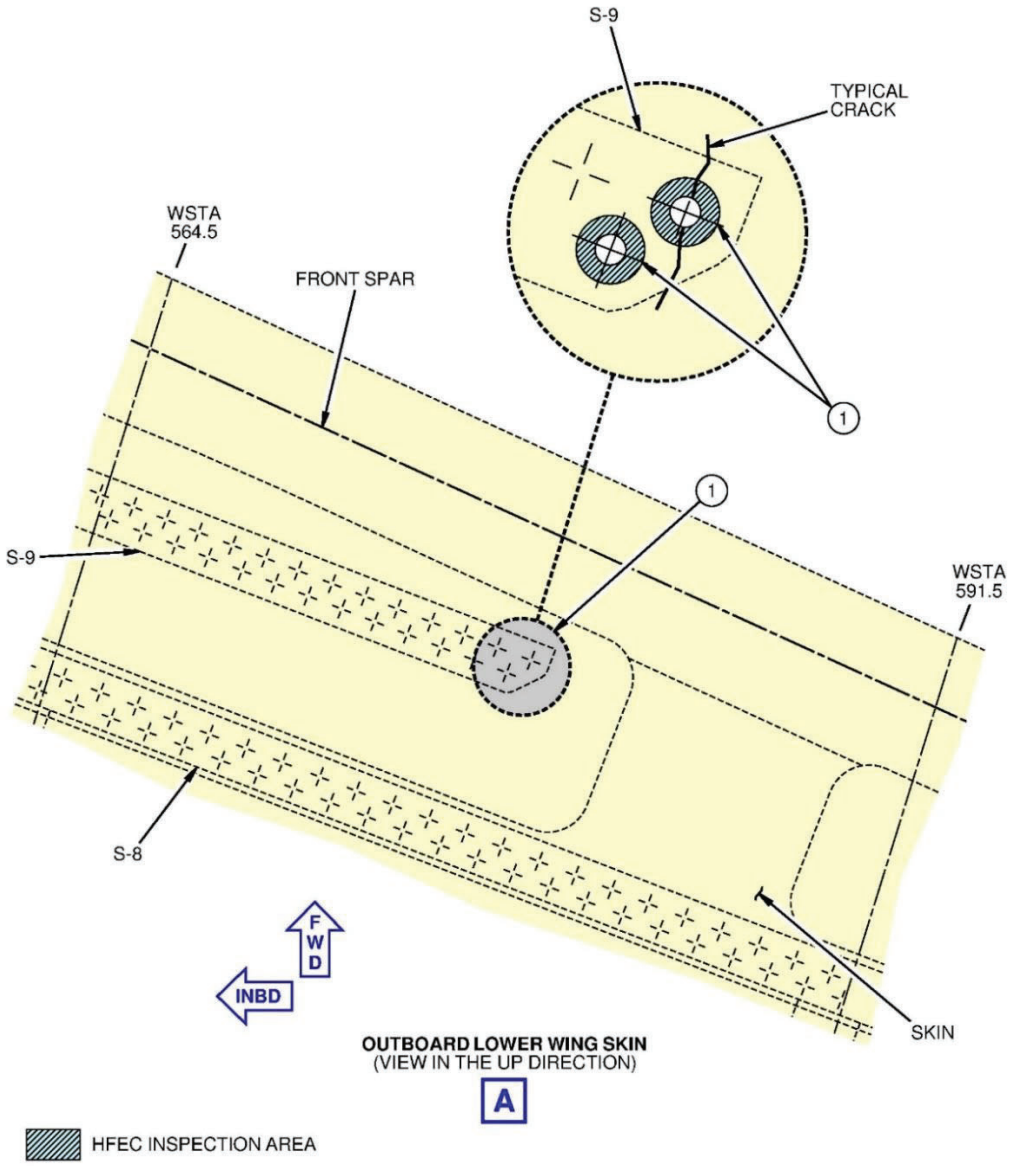


FIGURE 3: LEFT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-9 – SURFACE HFEC INSPECTION
(SHEET 1 OF 2)



The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
(a) Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin panel at specified fastener locations in accordance with 737 NDT Manual Part 6, 51-00-00, Procedure 4 or Procedure 23 for any crack.					

FIGURE 3: LEFT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-9 – SURFACE HFEC INSPECTION
(SHEET 2 OF 2)

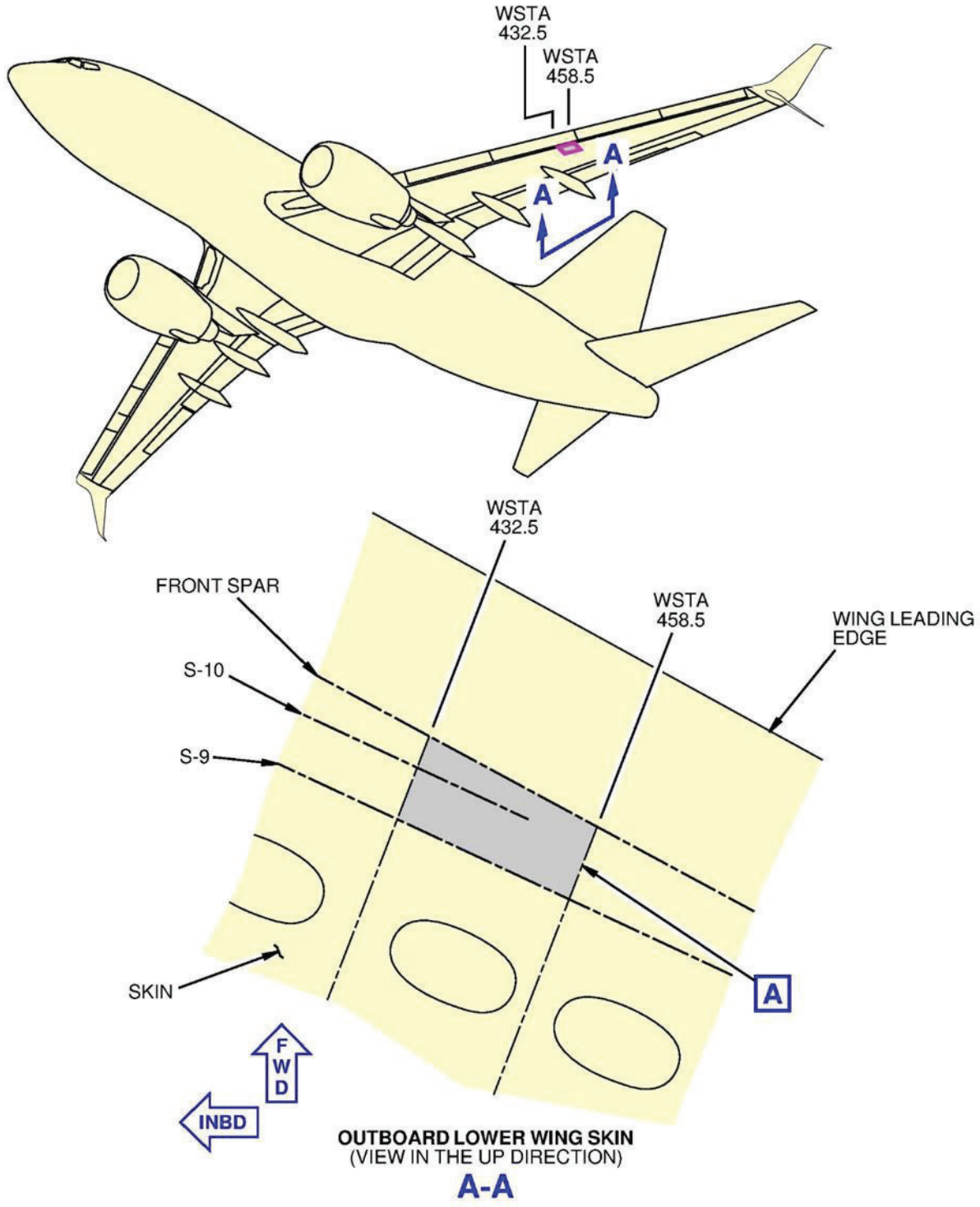
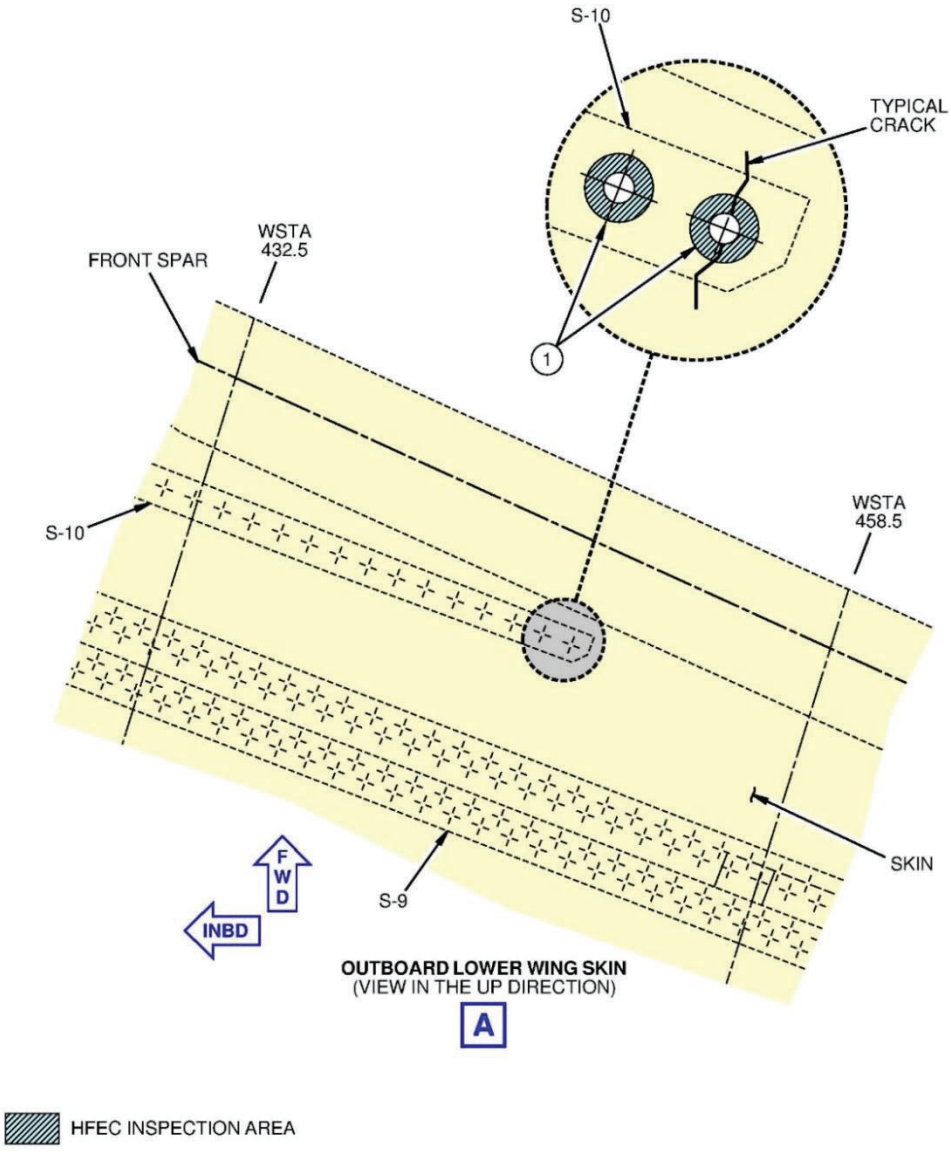


FIGURE 4: LEFT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-10 – SURFACE HFEC INSPECTION
(SHEET 1 OF 2)



The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
(a) Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin panel at specified fastener locations in accordance with 737 NDT Manual Part 6, 51-00-00, Procedure 4 or Procedure 23 for any crack.					

FIGURE 4: LEFT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-10 – SURFACE HFEC INSPECTION
(SHEET 2 OF 2)

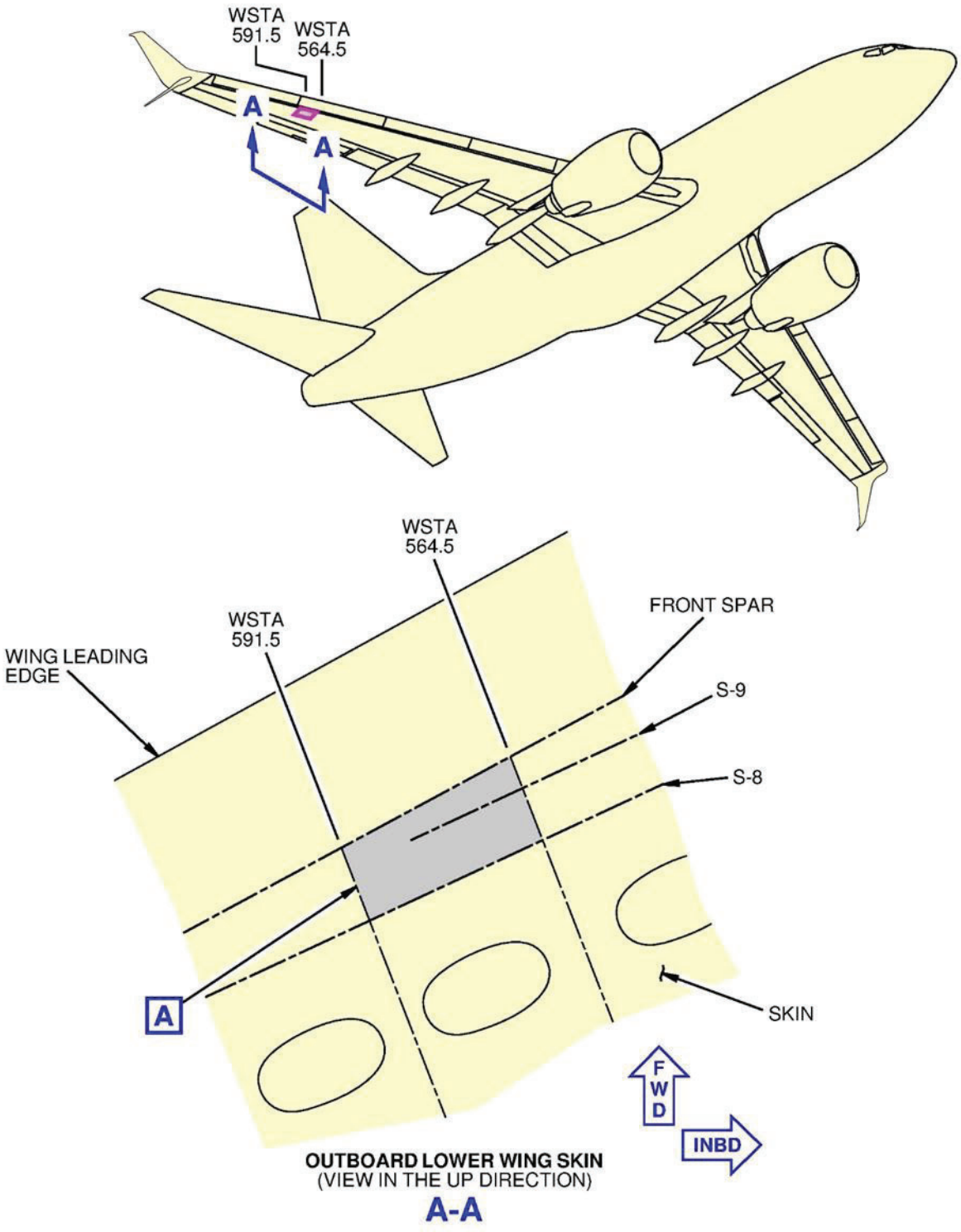
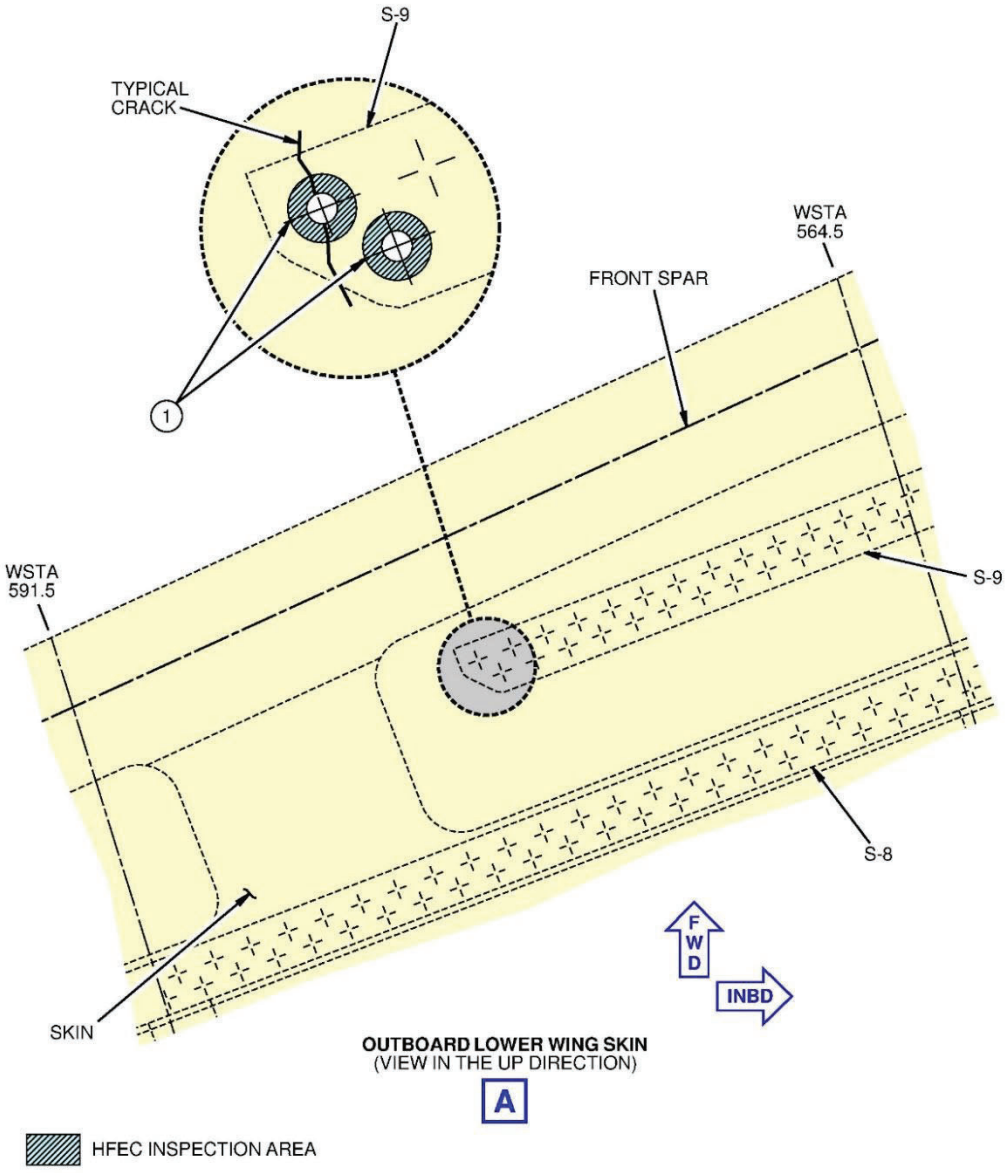


FIGURE 5: RIGHT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-9 – SURFACE HFEC INSPECTION
(SHEET 1 OF 2)



The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
(a) Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin panel at specified fastener locations in accordance with 737 NDT Manual Part 6, 51-00-00, Procedure 4 or Procedure 23 for any crack.					

FIGURE 5: RIGHT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-9 – SURFACE HFEC INSPECTION
(SHEET 2 OF 2)

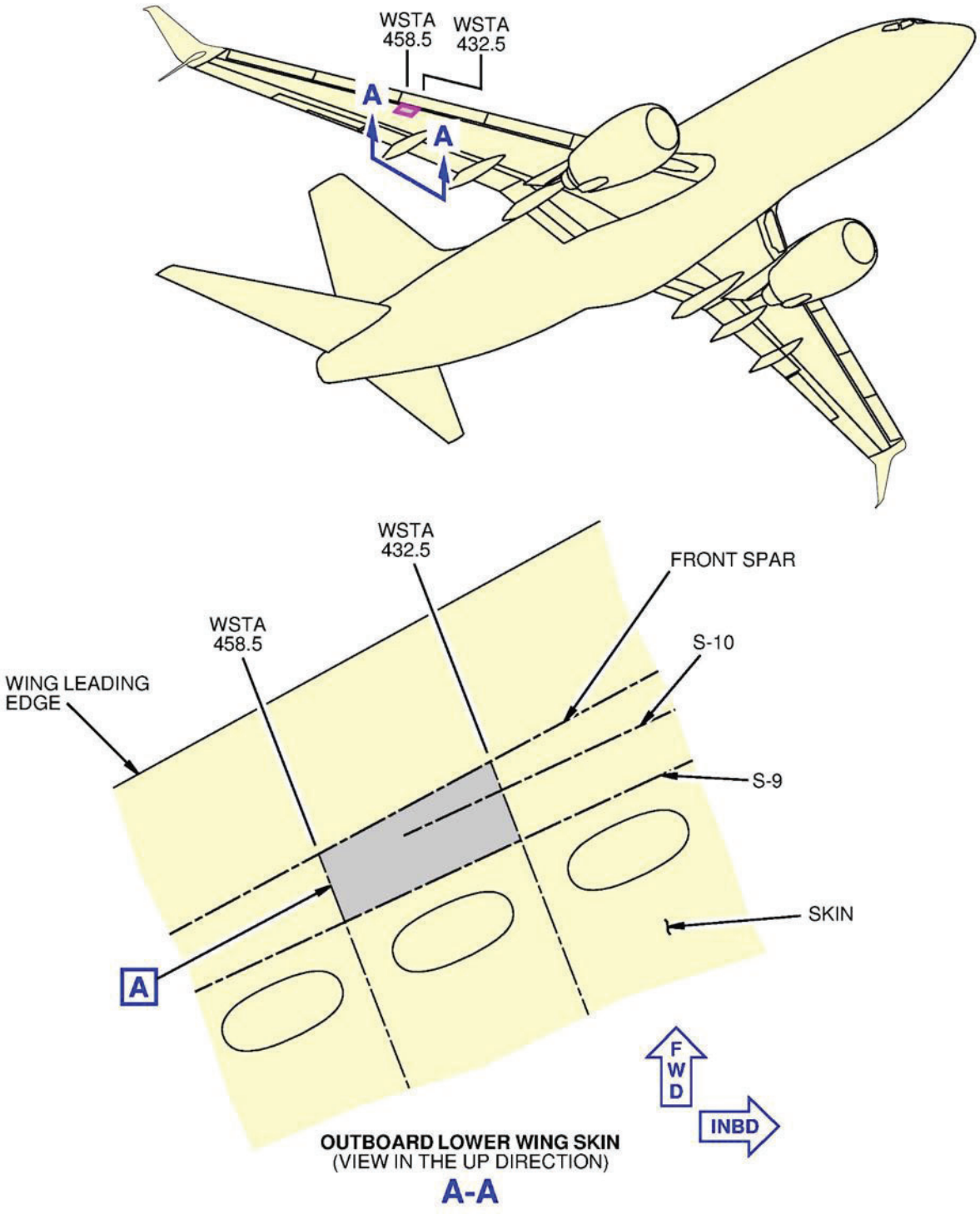
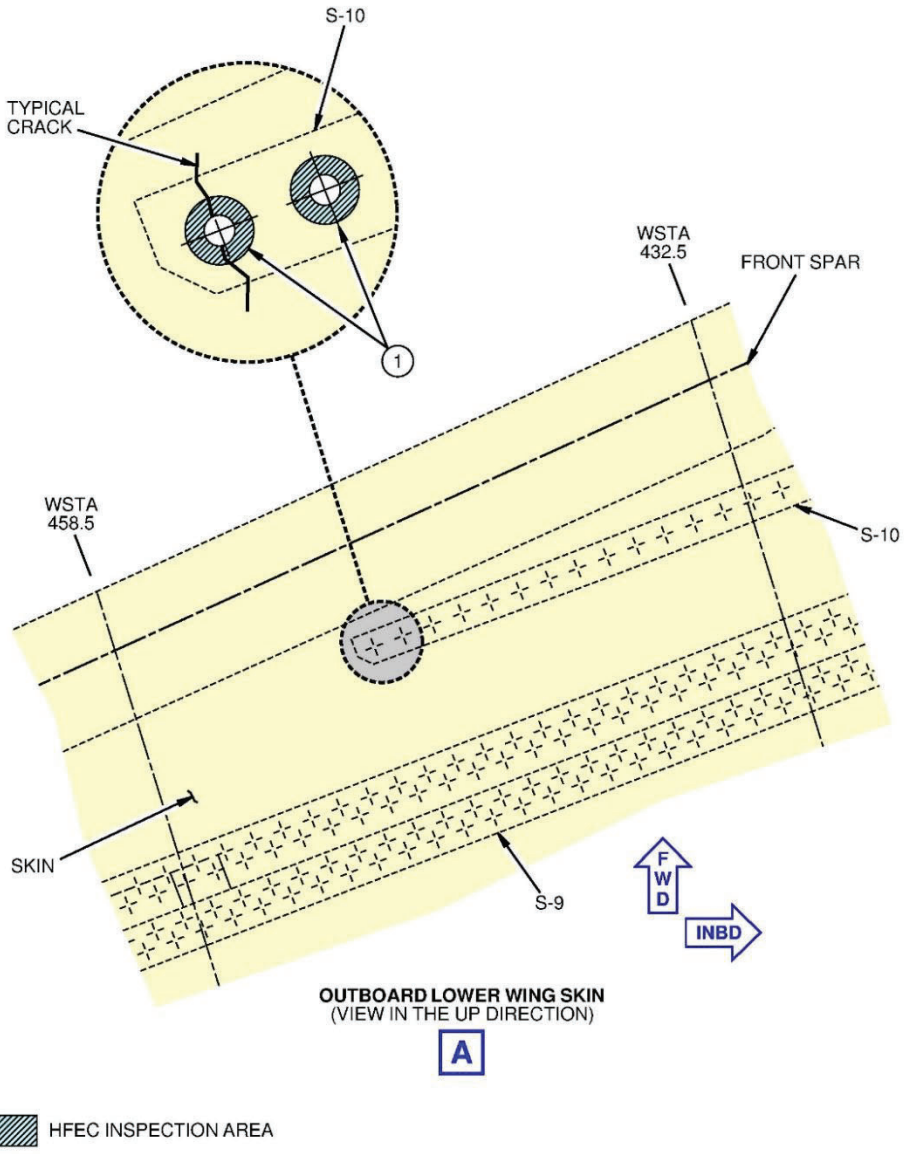


FIGURE 6: RIGHT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-10 – SURFACE HFEC INSPECTION
(SHEET 1 OF 2)



The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
(a) Do an external surface High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin panel at specified fastener locations in accordance with 737 NDT Manual Part 6, 51-00-00, Procedure 4 or Procedure 23 for any crack.					

FIGURE 6: RIGHT WING – OUTBOARD LOWER WING SKIN AT STRINGER S-10 – SURFACE HFEC INSPECTION
(SHEET 2 OF 2)

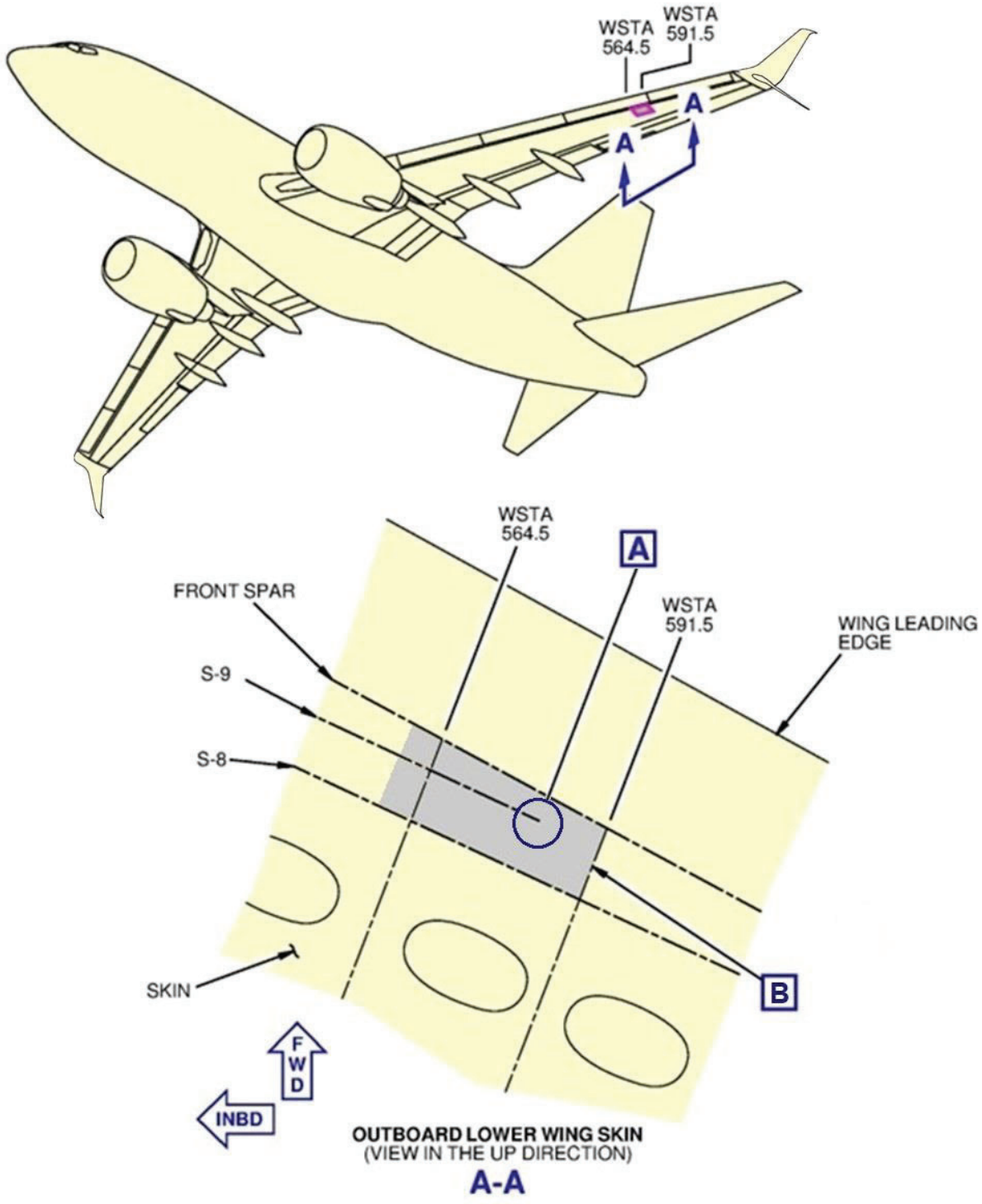
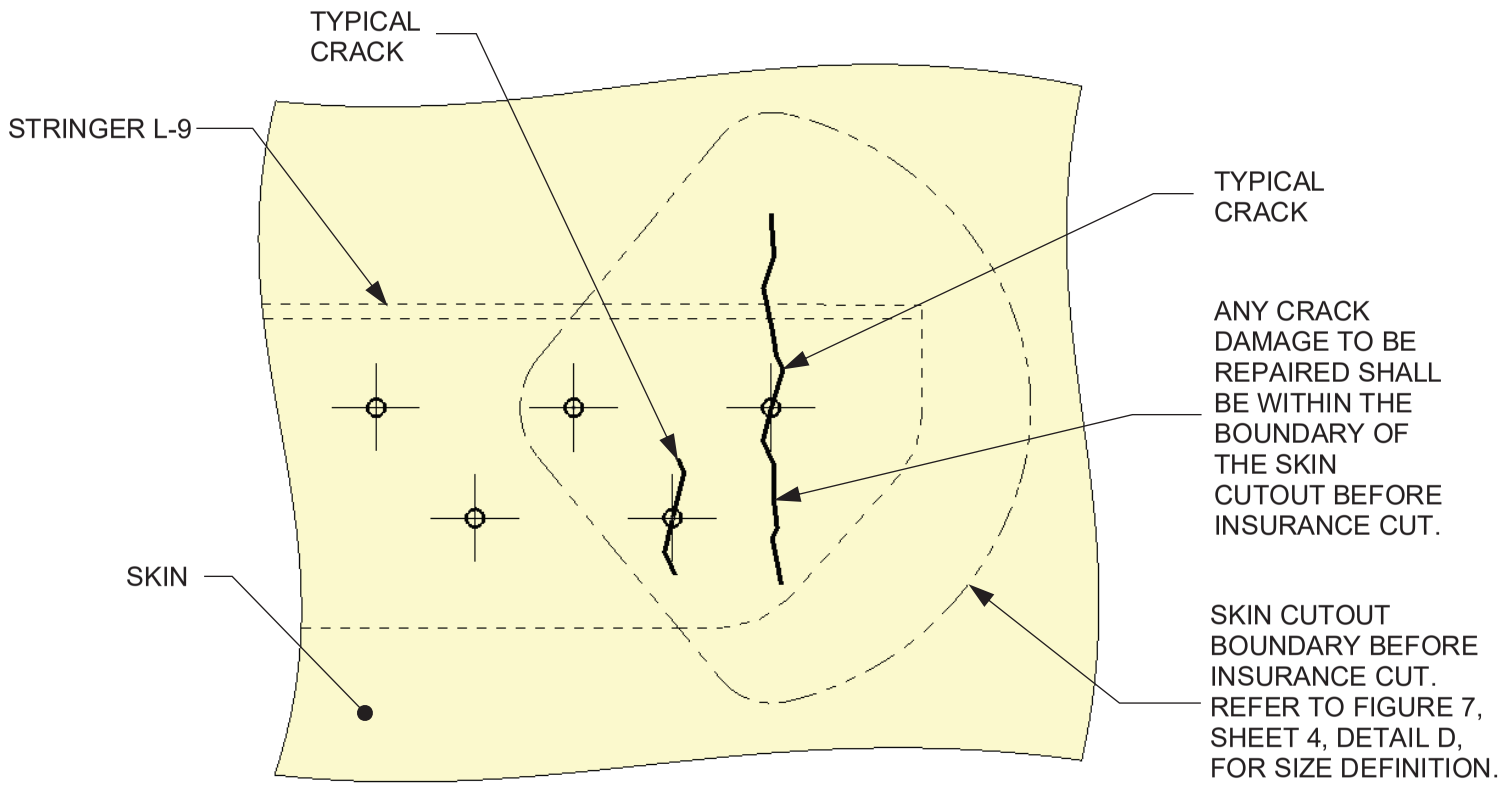


FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 1 OF 11)



OUTBOARD LOWER WING SKIN
(VIEW IN THE UP DIRECTION)

A

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 2 OF 11)

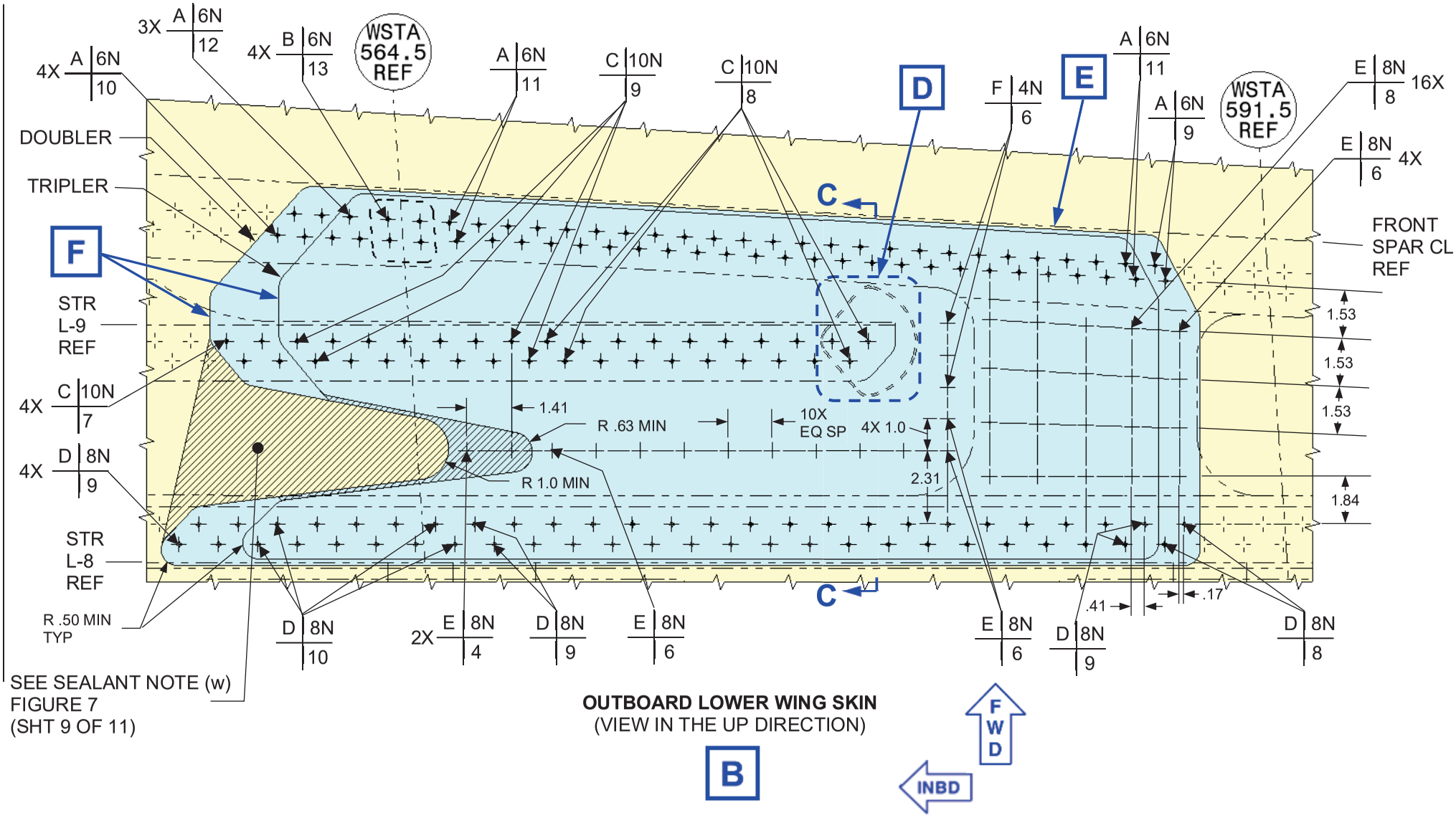
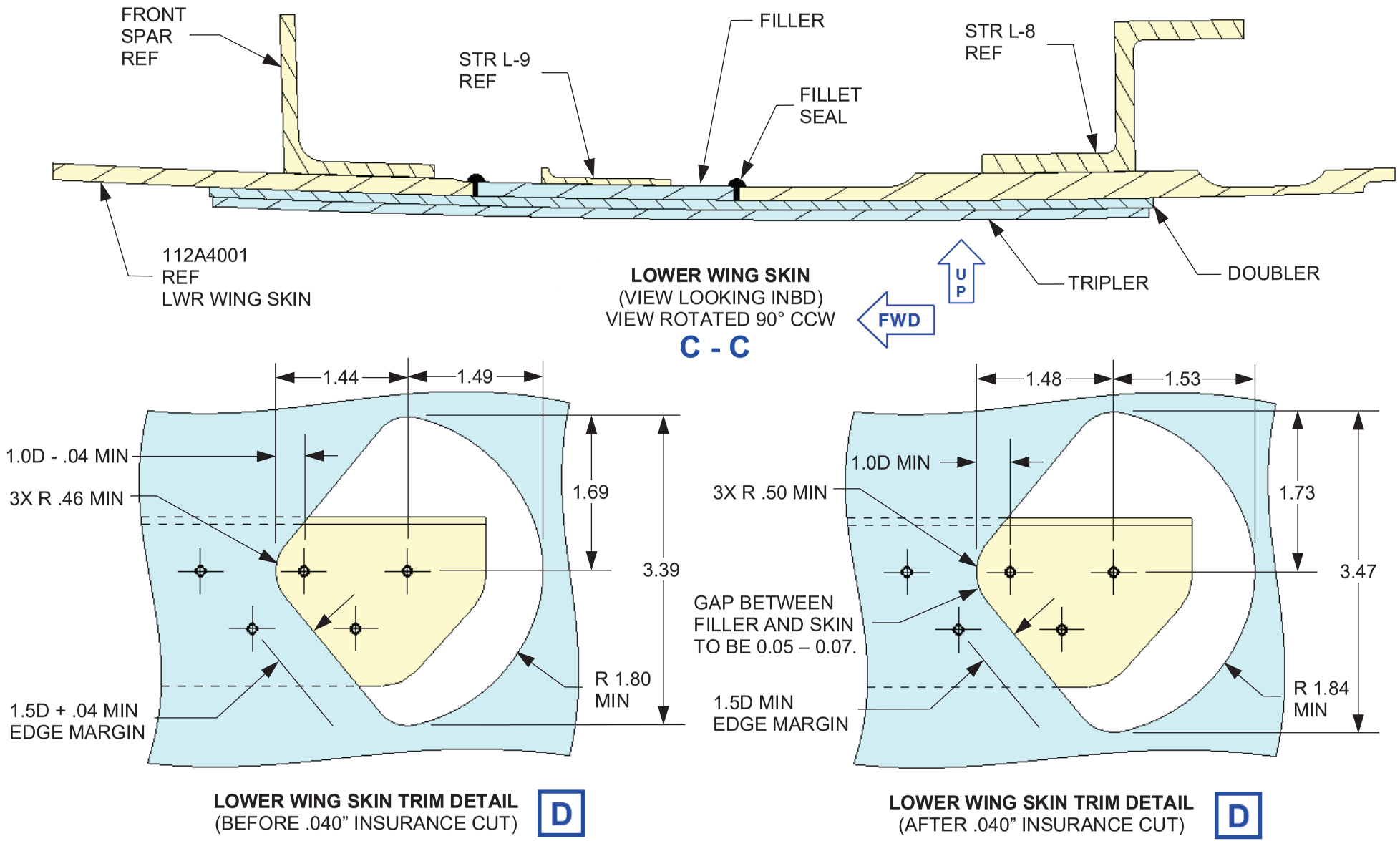


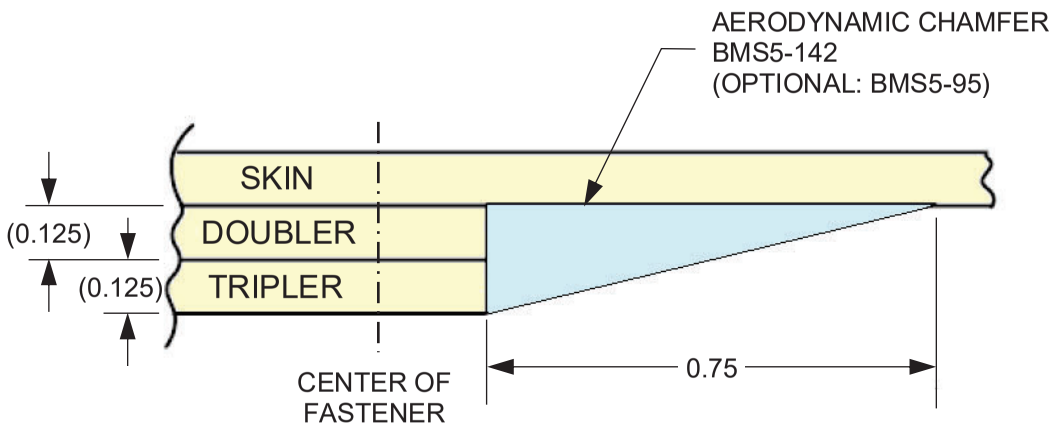
FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 3 OF 11)



LOWER WING SKIN TRIM DETAIL
(BEFORE .040" INSURANCE CUT) **D**

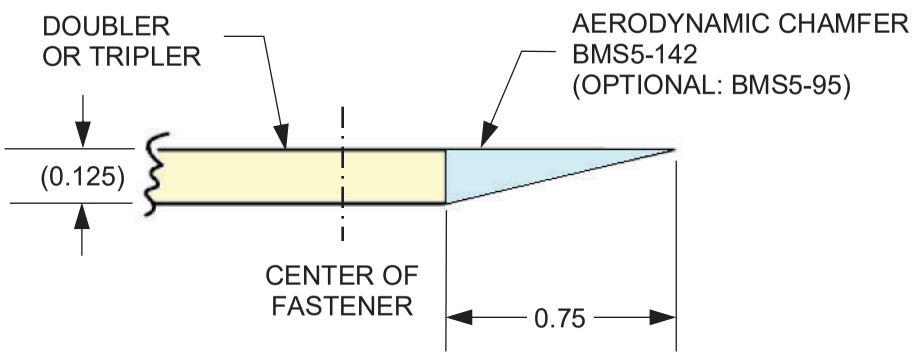
LOWER WING SKIN TRIM DETAIL
(AFTER .040" INSURANCE CUT) **D**

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 4 OF 11)



AERODYNAMIC CHAMFER DETAIL
(TYPICAL)

E



AERODYNAMIC CHAMFER DETAIL
(TYPICAL)

F

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 5 OF 11)

The step numbers shown below are required to complete the actions as shown in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Remove	FUEL	-	1	(a)
2	Purge	FUEL TANK	-	-	(b)
3	Remove	POWER	-	1	(c)
4	Remove	ACCESS PANELS	-	2	(d)
5	Remove	FASTENERS	-	3	(e)
6	Measure	CRACK	-	1	(f)
7	Remove	CRACKS	-	1	(g)
8	Inspect	SKIN	-	1	(h)
9	Remove	SKIN	-	1	(i)
10	Finish	SKIN	-	1	(j)
11	Make	FILLER	-	1	(k)
12	Make	DOUBLER	-	1	(l)
13	Make	TRIPLER	-	1	(m)
14	Inspect	REPAIR PARTS	-	-	(n)
15	Remove	FASTENERS	-	150	(o)
16	Prepare	FASTENER HOLES	-	186	(p)
17	Install	REPAIR WASHER	-	150	(q)
18	Finish	REPAIR PARTS	-	-	(r)

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 6 OF 11)

Step	Task	Name	Identification	Qty	More Data
19	Apply	CHEMICAL COATING	BONDERITE M-CR 600 AERO	-	(s)
20	Apply	PRIMER	BMS10-79/10-60/10-20	-	(t)
21	Apply	SEALANT	BMS5-45	-	(u)
22	Install	FASTENERS	-	186	(v)
23	Apply	SEALANT	BMS5-142	-	(w)
24	Apply	SEALANT	BMS5-45	-	(x)
(a)	Defuel the left main fuel tank. Refer to the 737 AMM, 28-26-00 as an accepted procedure.				
(b)	Refer to the 737 AMM, 28-11-00 as an accepted procedure.				
(c)	Refer to the 737 AMM, 24-22-00 as an accepted procedure.				
(d)	Remove and keep the following access panels. Refer to 737 AMM, 28-11-11 as an accepted procedure. • Left Wing 532NB, 532PB				
(e)	Remove the three fasteners at the outboard end of stringer L-9. Refer to the 737 SRM, 51-40-02 as an accepted procedure.				
(f)	Ensure that any crack damage falls within the boundary of the skin cutout as shown in Figure 7, Sheet 2 of 11. Refer to Figure 7, (Sheet 4 of 11) for size definition of the skin cutout. If all crack damage falls within the boundary of the skin cutout, proceed with the repair action. If any crack damage is outside of the boundary of the skin cutout, contact Aviation Partners Boeing for further repair instructions and do the repair.				
(g)	Make an initial trim out of the skin. Trim around the last three fastener holes on stringer L-9 to completely remove damage as shown in Detail D, before .040 inch insurance cut (Sheet 4 of 11). a. Maintain maximum dimensions shown before insurance cut. b. Edges shall have a surface finish of 63 micro inches Ra or smoother for inspection. c. Use steel shims to prevent damage to underlying stringer. d. Radius corners 0.46 inch minimum. e. Ensure 1.5D + 0.040" edge margin on adjacent fasteners.				

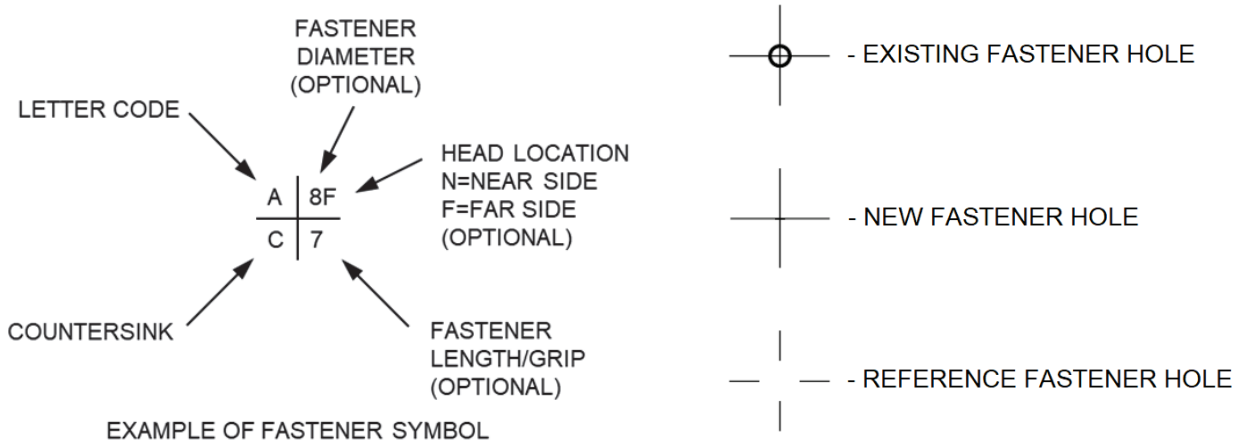
FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 7 OF 11)

(h)	Perform High Frequency Eddy Current (HFEC) inspection of the trimmed edge to make sure all damage has been removed. Refer to 737 NDT Manual Part 6, 51-00-00 Procedure 4 or Procedure 23, for accepted procedures. If any crack is found after trimming the opening as shown in Detail D, before the .040 inch insurance cut (Sheet 4 of 11), contact Aviation Partners Boeing for further repair instructions and do the repair.
(i)	If the trim-out edge is confirmed crack free, perform an insurance cut of 0.040 around the periphery in accordance with Detail D, after the .040 inch insurance cut (Sheet 4 of 11). a. Maintain shape of the cutout. b. The size of the cutout after insurance cut shall not exceed dimensions shown. c. Edges shall have a surface finish of 63 micro inches Ra or smoother prior to flap peen. d. Break sharp edges in accordance with SOPM 20-10-03. e. Use steel shims to prevent damage to underlying stringer. f. Radius corners 0.500 inch minimum. g. Ensure 1.5D edge margin on adjacent fasteners inboard of cutout.
(j)	Finish cutout edges as follows: a. Flap peen edge of cutout, Intensity .006A, coverage 1.0 automated or 2.0 manual. Refer to SOPM 20-10-03 as an accepted procedure. b. Apply Bonderite M-CR 600 Aero to bare surfaces. Refer to SOPM 20-43-03 as an accepted procedure. c. Apply two coats of BMS10-20, Type II primer. Refer to the 737 AMM, 28-11-00 as an accepted procedure.
(k)	Make the filler for the repair. See Table in 2.C.2 for material requirements. a. Trim the filler to meet the final dimensions of the cutout in accordance with Detail D, after the .040 inch insurance cut (Sheet 4 of 11). Filler thickness shall match skin thickness common to stringer 9L. b. Maintain 1D edge margin on fasteners common to filler. c. Break sharp edges of all repair parts to 0.003 to 0.020 inch radius.
(l)	Make the doubler for the repair. See Table in 2.C.2 for material requirements. a. Trim the doubler as shown in Figure 7 (Sheet 3 of 11) around the fasteners as required to achieve minimum edge margin of 2D. b. Maintain minimum 1.5D edge margin for fasteners adjacent to edge of skin cutout. c. Aero chamfer the inboard and outboard edges of the doubler. Refer to the 737 SRM 51-10-01 Figure 1 as an accepted procedure. Ensure chamfered edges have a surface finish of 63 micro inches Ra or smoother. Shot peen all over per BAC-5730, .004A - .007A. d. Break sharp edges of all repair parts to 0.003 to 0.020 inch radius.
(m)	Make the tripler for the repair. See Table in 2.C.2 for material requirements. a. Trim the tripler as shown in Figure 7 (Sheet 3 of 11) around the fasteners as required to achieve minimum edge margin of 2D. b. Maintain minimum 1.5D edge margin for fasteners adjacent to edge of skin cutout. c. Aero chamfer the outer edges of the tripler. Refer to the 737 SRM 51-10-01 Figure 1 as an accepted procedure. Ensure chamfered edges have a surface finish of 63 micro inches Ra or smoother. Shot peen all over per BAC-5730, .004A - .007A. d. Break sharp edges of all repair parts to 0.003 to 0.020 inch radius.

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 8 OF 11)

(n)	Assemble repair parts as shown in Figure 7 (Sheet 3 of 11) and Figure 7 (Sheet 4 of 11). If the gap is more than 0.005 inch before fastener installation after applying a part fitup force in accordance with Appendix K, the part must be contoured to match common surfaces. Parts may be contoured by shot peen forming or by hand forming and shot peen. Refer to SOPM, 20-10-03. Shimming is not allowed.
(o)	Remove existing fasteners common to the repair doubler per Figure 7 (Sheet 3 of 11). Refer to the 737 SRM, 51-40-02 as an accepted procedure.
(p)	Oversize existing fastener holes, if required, as shown in Figure 7 (Sheet 3 of 11) to specified size for fasteners with code ‘A’, ‘B’, ‘C’, and ‘D’ using applicable values shown in Figure 7 (Sheet 10 of 11). Perform an open hole HFEC inspection of all existing fastener holes common to the repair after required fastener holes have been oversized. Refer to 737 NDT Manual Part 6, 51-00-00 Procedure 1, Procedure 11, or Procedure 16, for accepted procedures. Drill new holes for fasteners with code ‘E’ and ‘F’ as shown in Figure 7 (Sheet 3 of 11) to the hole diameter(s) in accordance with the applicable values shown in Figure 7 (Sheet 10 of 11).
(q)	Use 100 degree countersink repair washers to fill existing countersinks in wing skin. For locations where the original holes have modified 82/30 degree countersink, touch up the countersink using 100 degree standard countersink cutter. Ensure countersinks are not deeper than original countersinks. Fabricate countersink repair washer to match the 100 degree countersink. Refer to SRM 51-40-08 as an accepted procedure.
(r)	Remove all nicks, scratches, gouges, burrs, and sharp edges from the initial and repair parts.
(s)	Mating surfaces of the doubler, tripler, and filler shall use electrical fay surface bond per BAC5117-6 Category 2 except Bonderite M-CR 600 Aero is applied per SRM 51-20-01. Remove existing primer in the bonding surface of the lower skin. DO NOT apply primer to any bonding surfaces. Apply Bonderite M-CR 600 Aero per SRM-51-20-01 to bonding surfaces of repair parts and lower skin.
(t)	Apply one coat of BMS10-79, Type III primer to all external aerodynamic surfaces of doubler, tripler, and skin per SOPM 20-44-04. Apply one coat of BMS10-60, Type II enamel to all external aerodynamic surfaces of doubler, tripler, and skin per AMM 51-21-00/701. Apply one coat of BMS10-20, type II primer to the internal non-bonded surface of filler, lower skin and stringer per AMM 51-21-00/701. This primer can be applied on the sealant.
(u)	Apply faying surface seal between all part-to-part interfaces using BMS5-45, Class B-2 or C sealant. Refer to AMM 28-11-00 as an accepted procedure. Sealant must squeeze-out around filler.
(v)	Install the noted fasteners in accordance with Figure 7 (Sheet 3 of 11) and applicable values shown in Figure 7 (Sheet 10 of 11) with BMS5-45, class B sealant under the head of fasteners. Torque nuts and re-apply torque. Refer to 737 SRM 51-40-02 as an accepted procedure for fastener installation. Refer to SOPM 20-50-19 method 1 as an accepted procedure for sealant application. Cap seal all fasteners inside fuel tank with BMS5-45 per BAC5504 or SRM 51-80-01, Figure 1. Apply brush coat sealant BMS5-45 class A to all fasteners. Refer to AMM 28-11-00.
(w)	Fillet seal all edges of the doubler/ tripler per Detail E and Detail F with BMS5-142 (optional BMS5-95) class B. Refer to SOPM 20-50-11 as an accepted procedure.
(x)	Apply brush coat sealant BMS5-45 class A around the periphery of the stringer where the seal is damaged. Subsequently apply fillet seal around the periphery of the stringer where the seal is damaged and the gap between the filler and the wing skin cutout with BMS5-45, class B sealant. Refer to AMM 28-11-00 as an accepted procedure. See Figure 7 Sheet (4 of 11) Section C-C for fillet seal locations.

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 9 OF 11)



The codes shown below agree with the letter shown in the upper left corner of the fastener symbols in the figure. A number in the lower right corner gives the grip length of the fastener. The QTY numbers shown below are the number of fasteners necessary for this figure.

Code	Name	Identification	Qty	Hole Diameter	More Data
A	BOLT, 100 DEG TENSION HEAD, HEX DRIVE, OVERSIZE	BACB30LX6A*	57	0.1986 – 0.2006	(a)(c)(d)
	COLLAR, TENSION, REDUCED HEX	BACC30BH6	57		
B	BOLT, 100 DEG TENSION HEAD, HEX DRIVE, OVERSIZE	BACB30LX6A*	4	0.1986 – 0.2006	(a)(c)(e)
	COLLAR, TENSION, REDUCED HEX	BACC30BH6	4		
C	BOLT, 100 DEG SHEAR HEAD, HEX DRIVE, OVERSIZE	BACB30NW10K*X	37	0.3236 – 0.3256	(a)(c)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10WM5	37		
D	BOLT, 100 DEG SHEAR HEAD, HEX DRIVE, OVERSIZE	BACB30NW8K*X	52	0.2611 – 0.2631	(a)(c)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10WM4	52		
E	BOLT, 100 DEG SHEAR HEAD, HEX DRIVE	BACB30NW8K*	33	0.2455 – 0.2475	(a)(c)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10WM4	33		

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 10 OF 11)

Code	Name	Identification	Qty	Hole Diameter	More Data
F	BOLT, RADIUS LEAD-IN, 100 DEG HEAD	BACB30WQ4K*L	3	0.2510 – 0.2531	(a)(b)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10TN4K	3		
(a)	Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank with BMS5-45 per BAC5504 or SRM 51-80-01, Figure 1.				
(b)	Install fasteners per BAC5060.				
(c)	Install fasteners per BAC5047.				
(d)	**FOR GROUP 1 ONLY:** As an alternate, install BACB30WQ3K*L + BACN10TN3K with hole diameter .1910 – .1933. Install fasteners per BAC5060. OR Install BACB30WQ3K*LX + BACN10HY3M + BACW10AW3AST with hole diameter .2006 – .2029. Install fasteners per BAC5060. Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank per BAC5504 or SRM 51-80-01, Figure 1. **FOR GROUP 2, LN 2458 – 99999 ONLY:** As an alternate, install BACB30WQ3K*L + BACN10TN3K with hole diameter .1910 – .1933. Install fasteners per BAC5060. Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank per BAC5504 or SRM 51-80-01, Figure 1.				
(e)	As an alternate, if hole requirements cannot be met after original fastener removal, install BACB30LY6A* + BACC30AC6 with hole diameter .2142 – .2162. Install fasteners per BAC5047. Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank per BAC5504 or SRM 51-80-01, Figure 1.				

FIGURE 7: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 11 OF 11)

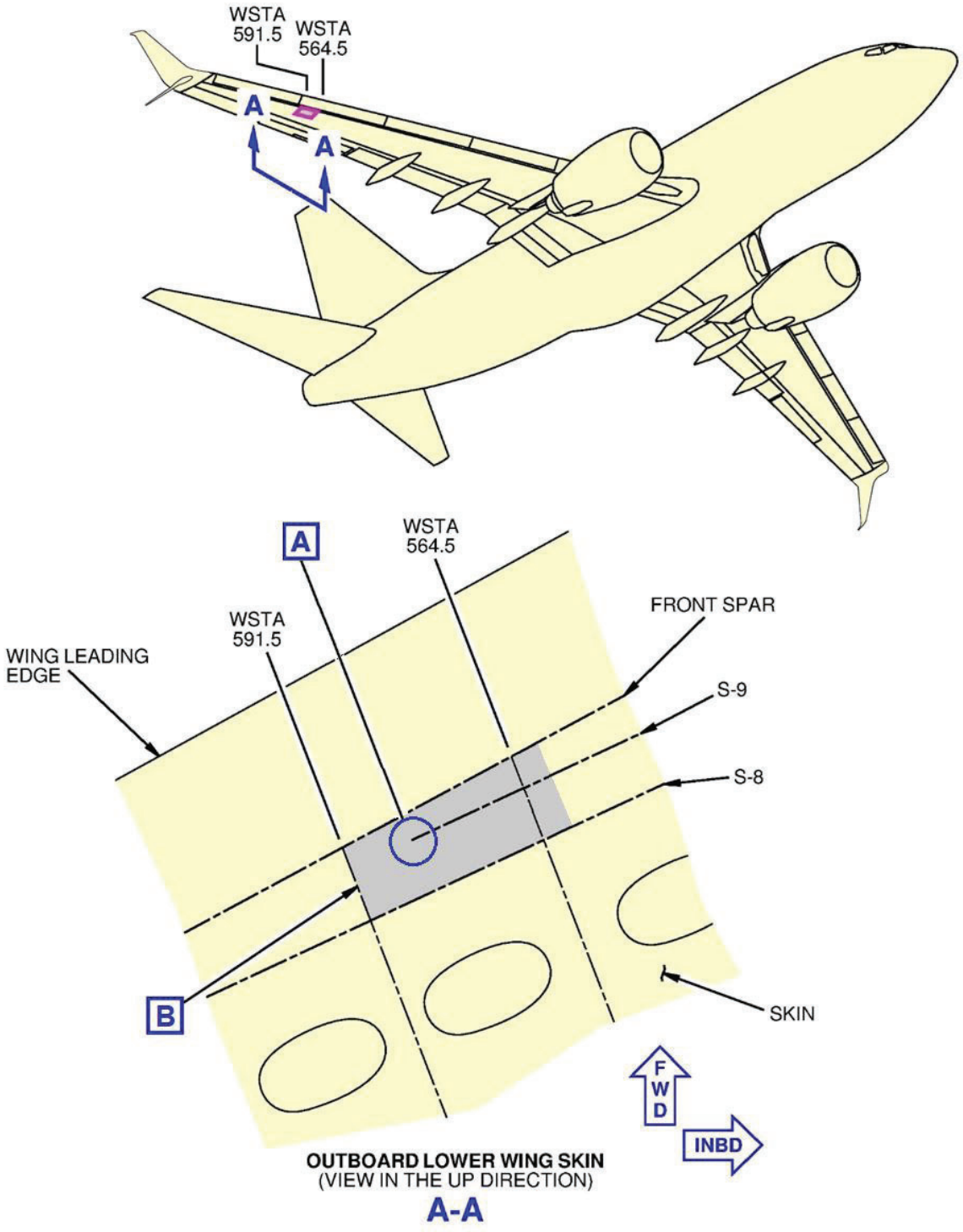
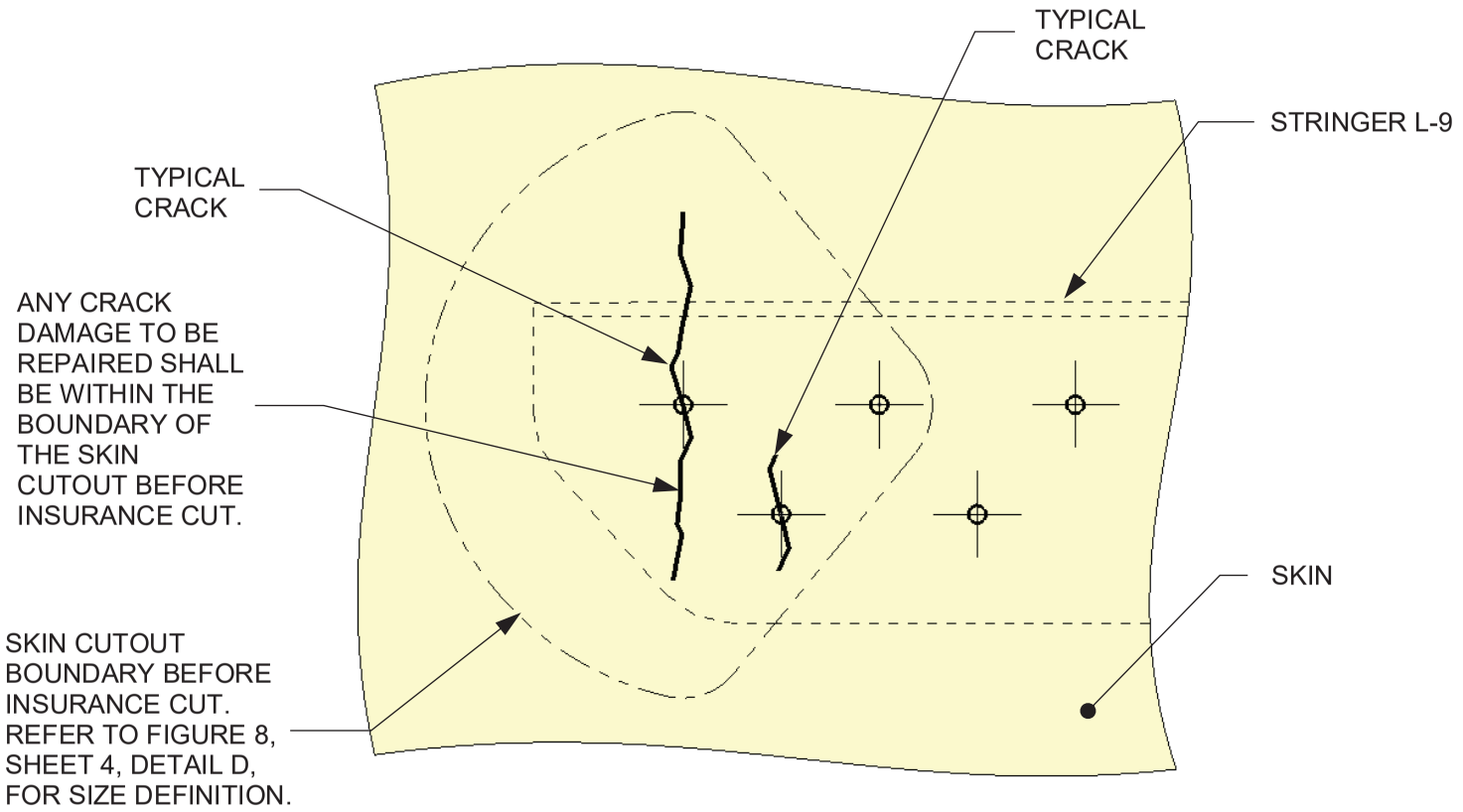


FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 1 OF 11)



OUTBOARD LOWER WING SKIN
(VIEW IN THE UP DIRECTION)

A

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 2 OF 11)

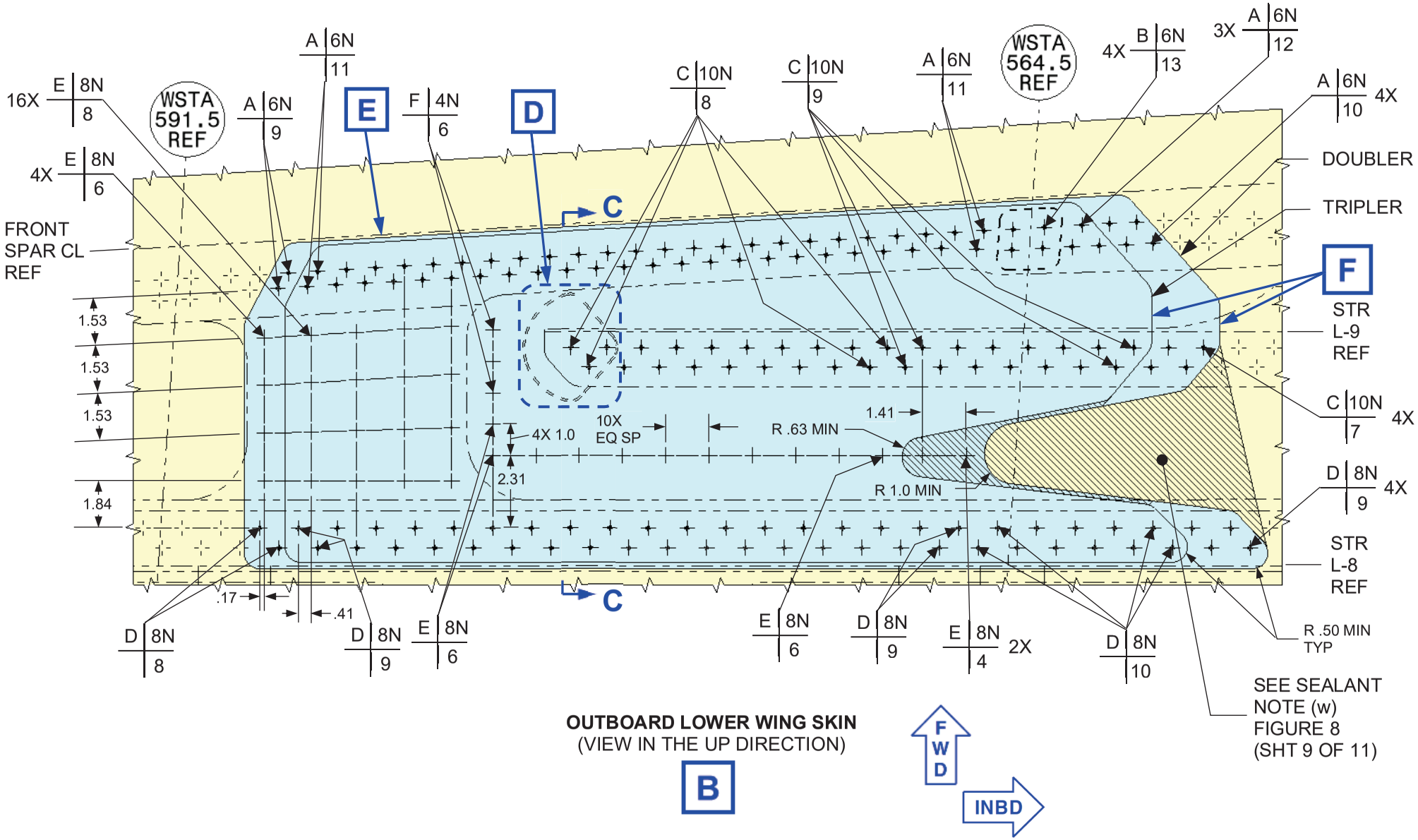


FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 3 OF 11)

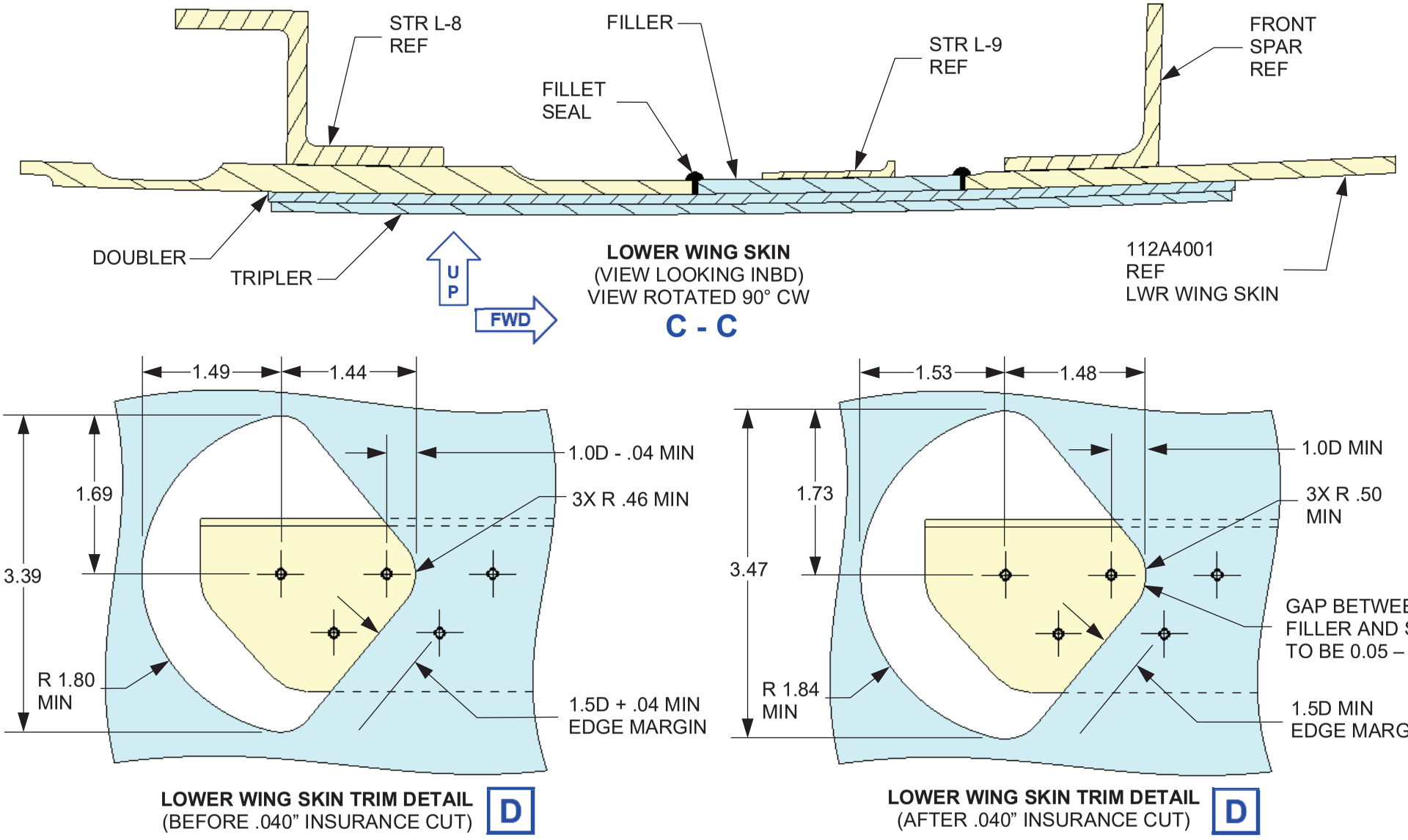
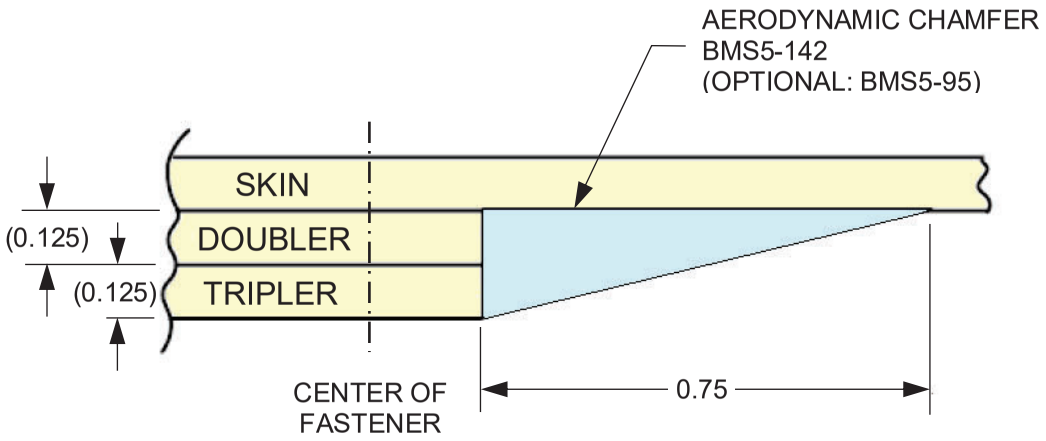
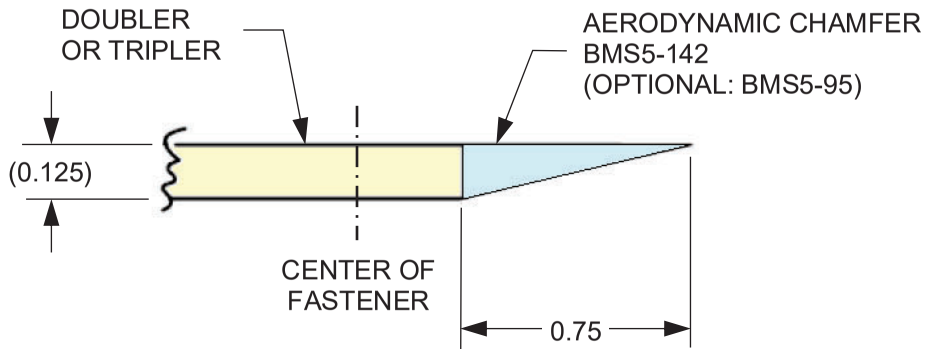


FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 4 OF 11)



AERODYNAMIC CHAMFER DETAIL
(TYPICAL)

E



AERODYNAMIC CHAMFER DETAIL
(TYPICAL)

F

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 5 OF 11)

The step numbers shown below are required to complete the actions as shown in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Remove	FUEL	-	1	(a)
2	Purge	FUEL TANK	-	-	(b)
3	Remove	POWER	-	1	(c)
4	Remove	ACCESS PANELS	-	2	(d)
5	Remove	FASTENERS	-	3	(e)
6	Measure	CRACK	-	1	(f)
7	Remove	CRACKS	-	1	(g)
8	Inspect	SKIN	-	1	(h)
9	Remove	SKIN	-	1	(i)
10	Finish	SKIN	-	1	(j)
11	Make	FILLER	-	1	(k)
12	Make	DOUBLER	-	1	(l)
13	Make	TRIPLER	-	1	(m)
14	Inspect	REPAIR PARTS	-	-	(n)
15	Remove	FASTENERS	-	150	(o)
16	Prepare	FASTENER HOLES	-	186	(p)
17	Install	REPAIR WASHER	-	150	(q)
18	Finish	REPAIR PARTS	-	-	(r)

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 6 OF 11)

Step	Task	Name	Identification	Qty	More Data
19	Apply	CHEMICAL COATING	BONDERITE M-CR 600 AERO	-	(s)
20	Apply	PRIMER	BMS10-79/10-60/10-20	-	(t)
21	Apply	SEALANT	BMS5-45	-	(u)
22	Install	FASTENERS	-	186	(v)
23	Apply	SEALANT	BMS5-142	-	(w)
24	Apply	SEALANT	BMS5-45	-	(x)
(a)	Defuel the right main fuel tank. Refer to the 737 AMM, 28-26-00 as an accepted procedure.				
(b)	Refer to the 737 AMM, 28 11-00 as an accepted procedure.				
(c)	Refer to the 737 AMM, 24 22-00 as an accepted procedure.				
(d)	Remove and keep the following access panels. Refer to 737 AMM, 28-11-03 as an accepted procedure. • Right Wing 632NB, 632PB				
(e)	Remove the three fasteners at the outboard end of stringer L-9. Refer to the 737 SRM, 51-40-02 as an accepted procedure.				
(f)	Ensure that any crack damage falls within the boundary of the skin cutout as shown in Figure 8, Sheet 2 of 11. Refer to Figure 8, (Sheet 4 of 11) for size definition of the skin cutout. If all crack damage falls within the boundary of the skin cutout, proceed with the repair action. If any crack damage is outside of the boundary of the skin cutout, contact Aviation Partners Boeing for further repair instructions and do the repair.				
(g)	Make an initial trim out of the skin. Trim around the last three fastener holes on stringer L-9 to completely remove damage as shown in Detail D, before .040 inch insurance cut (Sheet 4 of 11). a. Maintain maximum dimensions shown before insurance cut. b. Edges shall have a surface finish of 63 micro inches Ra or smoother for inspection. c. Use steel shims to prevent damage to underlying stringer. d. Radius corners 0.46 inch minimum. e. Ensure 1.5D + 0.040" edge margin on adjacent fasteners.				

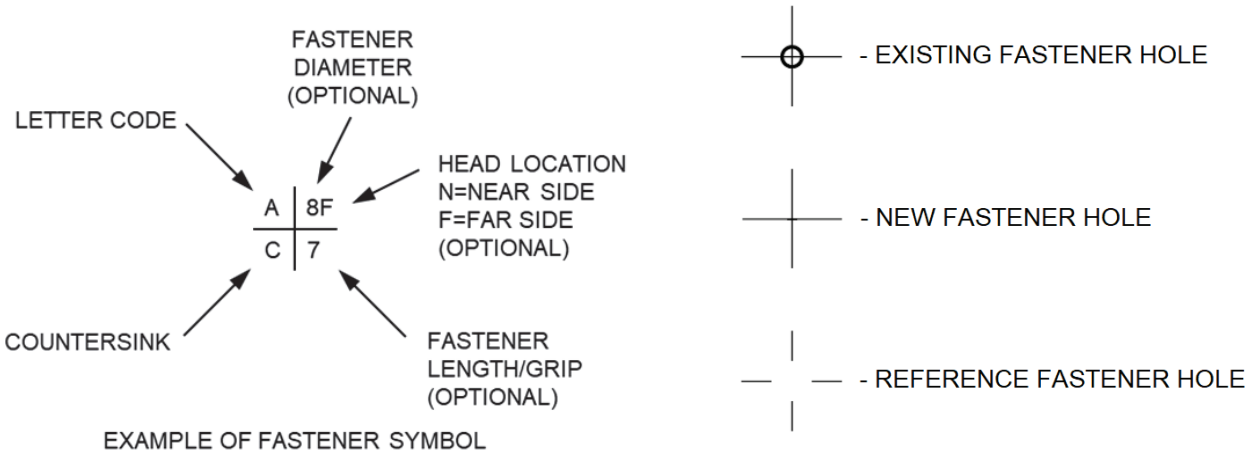
FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 7 OF 11)

(h)	Perform High Frequency Eddy Current (HFEC) inspection of the trimmed edge to make sure all damage has been removed. Refer to 737 NDT Manual Part 6, 51-00-00 Procedure 4 or Procedure 23, for accepted procedures. If any crack is found after trimming the opening as shown in Detail D, before the .040 inch insurance cut (Sheet 4 of 11), contact Aviation Partners Boeing for further repair instructions and do the repair.
(i)	If the trim-out edge is confirmed crack free, perform an insurance cut of 0.040 around the periphery in accordance with Detail D, after the .040 inch insurance cut (Sheet 4 of 11). a. Maintain shape of the cutout. b. The size of the cutout after insurance cut shall not exceed dimensions shown. c. Edges shall have a surface finish of 63 micro inches Ra or smoother prior to flap peen. d. Break sharp edges in accordance with SOPM 20-10-03. e. Use steel shims to prevent damage to underlying stringer. f. Radius corners 0.500 inch minimum. g. Ensure 1.5D edge margin on adjacent fasteners inboard of cutout.
(j)	Finish cutout edges as follows: a. Flap peen edge of cutout, Intensity .006A, coverage 1.0 automated or 2.0 manual. Refer to SOPM 20-10-03 as an accepted procedure. b. Apply Bonderite M-CR 600 Aero to bare surfaces. Refer to SOPM 20-43-03 as an accepted procedure. c. Apply two coats of BMS10-20, Type II primer. Refer to the 737 AMM, 28-11-00 as an accepted procedure.
(k)	Make the filler for the repair. See Table in 2.C.2 for material requirements. a. Trim the filler to meet the final dimensions of the cutout in accordance with Detail D, after the .040 inch insurance cut (Sheet 4 of 11). Filler thickness shall match skin thickness common to stringer 9L. b. Maintain 1D edge margin on fasteners common to filler. c. Break sharp edges of all repair parts to 0.003 to 0.020 inch radius.
(l)	Make the doubler for the repair. See Table in 2.C.2 for material requirements. a. Trim the doubler as shown in Figure 8 (Sheet 3 of 11) around the fasteners as required to achieve minimum edge margin of 2D. b. Maintain minimum 1.5D edge margin for fasteners adjacent to edge of skin cutout. c. Aero chamfer the inboard and outboard edges of the doubler. Refer to the 737 SRM 51-10-01 Figure 1 as an accepted procedure. Ensure chamfered edges have a surface finish of 63 micro inches Ra or smoother. Shot peen all over per BAC-5730, .004A - .007A. d. Break sharp edges of all repair parts to 0.003 to 0.020 inch radius.
(m)	Make the tripler for the repair. See Table in 2.C.2 for material requirements. a. Trim the tripler as shown in Figure 8 (Sheet 3 of 11) around the fasteners as required to achieve minimum edge margin of 2D. b. Maintain minimum 1.5D edge margin for fasteners adjacent to edge of skin cutout. c. Aero chamfer the outer edges of the tripler. Refer to the 737 SRM 51-10-01 Figure 1 as an accepted procedure. Ensure chamfered edges have a surface finish of 63 micro inches Ra or smoother. Shot peen all over per BAC-5730, .004A - .007A. d. Break sharp edges of all repair parts to 0.003 to 0.020 inch radius.

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 8 OF 11)

(n)	Assemble repair parts as shown in Figure 8 (Sheet 3 of 11) and Figure 8 (Sheet 4 of 11). If the gap is more than 0.005 inch before fastener installation after applying a part fitup force in accordance with Appendix K, the part must be contoured to match common surfaces. Parts may be contoured by shot peen forming or by hand forming and shot peen. Refer to SOPM, 20-10-03. Shimming is not allowed.
(o)	Remove existing fasteners common to the repair doubler per Figure 8 (Sheet 3 of 11). Refer to the 737 SRM, 51-40-02 as an accepted procedure.
(p)	Oversize existing fastener holes, if required, as shown in Figure 8 (Sheet 3 of 11) to specified size for fasteners with code 'A', 'B', 'C', and 'D' using applicable values shown in Figure 8 (Sheet 10 of 11). Perform an open hole HFEC inspection of all existing fastener holes common to the repair after required fastener holes have been oversized. Refer to 737 NDT Manual Part 6, 51-00-00 Procedure 1, Procedure 11, or Procedure 16, for accepted procedures. Drill new holes for fasteners with code 'E' and 'F' as shown in Figure 8 (Sheet 3 of 11) to the hole diameter(s) in accordance with the applicable values shown in Figure 8 (Sheet 10 of 11).
(q)	Use 100 degree countersink repair washers to fill existing countersinks in wing skin. For locations where the original holes have modified 82/30 degree countersink, touch up the countersink using 100 degree standard countersink cutter. Ensure countersinks are not deeper than original countersinks. Fabricate countersink repair washer to match the 100 degree countersink. Refer to SRM 51-40-08 as an accepted procedure.
(r)	Remove all nicks, scratches, gouges, burrs, and sharp edges from the initial and repair parts.
(s)	Mating surfaces of the doubler, tripler, and filler shall use electrical fay surface bond per BAC5117-6 Category 2 except Bonderite M-CR 600 Aero is applied per SRM 51-20-01. Remove existing primer in the bonding surface of the lower skin. DO NOT apply primer to any bonding surfaces. Apply Bonderite M-CR 600 Aero per SRM-51-20-01 to bonding surfaces of repair parts and lower skin.
(t)	Apply one coat of BMS10-79, Type III primer to all external aerodynamic surfaces of doubler, tripler, and skin per SOPM 20-44-04. Apply one coat of BMS10-60, Type II enamel to all external aerodynamic surfaces of doubler, tripler, and skin per AMM 51-21-00/701. Apply one coat of BMS10-20, type II primer to the internal non-bonded surface of filler, lower skin and stringer per AMM 51-21-00/701. This primer can be applied on the sealant.
(u)	Apply faying surface seal between all part-to-part interfaces using BMS5-45, Class B-2 or C sealant. Refer to AMM 28-11-00 as an accepted procedure. Sealant must squeeze-out around filler.
(v)	Install the noted fasteners in accordance with Figure 8 (Sheet 3 of 11) and applicable values shown in Figure 8 (Sheet 10 of 11) with BMS5-45, class B sealant under the head of fasteners. Torque nuts and re-apply torque. Refer to 737 SRM 51-40-02 as an accepted procedure for fastener installation. Refer to SOPM 20-50-19 method 1 as an accepted procedure for sealant application. Cap seal all fasteners inside fuel tank with BMS5-45 per BAC5504 or SRM 51-80-01, Figure 1. Apply brush coat sealant BMS5-45 class A to all fasteners. Refer to AMM 28-11-00.
(w)	Fillet seal all edges of the doubler/ tripler per Detail E and Detail F with BMS5-142 (optional BMS5-95) class B. Refer to SOPM 20-50-11 as an accepted procedure.
(x)	Apply brush coat sealant BMS5-45 class A around the periphery of the stringer where the seal is damaged. Subsequently apply fillet seal around the periphery of the stringer where the seal is damaged and the gap between the filler and the wing skin cutout with BMS5-45, class B sealant. Refer to AMM 28-11-00 as an accepted procedure. See Figure 8 Sheet (4 of 11) Section C-C for fillet seal locations.

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 9 OF 11)



The codes shown below agree with the letter shown in the upper left corner of the fastener symbols in the figure. A number in the lower right corner gives the grip length of the fastener. The QTY numbers shown below are the number of fasteners necessary for this figure.

Code	Name	Identification	Qty	Hole Diameter	More Data
A	BOLT, 100 DEG TENSION HEAD, HEX DRIVE, OVERSIZE	BACB30LX6A*	57	0.1986 – 0.2006	(a)(c)(d)
	COLLAR, TENSION, REDUCED HEX	BACC30BH6	57		
B	BOLT, 100 DEG TENSION HEAD, HEX DRIVE, OVERSIZE	BACB30LX6A*	4	0.1986 – 0.2006	(a)(c)(e)
	COLLAR, TENSION, REDUCED HEX	BACC30BH6	4		
C	BOLT, 100 DEG SHEAR HEAD, HEX DRIVE, OVERSIZE	BACB30NW10K*X	37	0.3236 – 0.3256	(a)(c)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10WM5	37		
D	BOLT, 100 DEG SHEAR HEAD, HEX DRIVE, OVERSIZE	BACB30NW8K*X	52	0.2611 – 0.2631	(a)(c)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10WM4	52		
E	BOLT, 100 DEG SHEAR HEAD, HEX DRIVE	BACB30NW8K*	33	0.2455 – 0.2475	(a)(c)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10WM4	33		

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 10 OF 11)

Code	Name	Identification	Qty	Hole Diameter	More Data
F	BOLT, RADIUS LEAD-IN, 100 DEG HEAD	BACB30WQ4K*L	3	0.2510 – 0.2531	(a)(b)
	NUT, SELF-LOCKING, 12 POINT, SELF-SEALING	BACN10TN4K	3		
(a)	Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank with BMS5-45 per BAC5504 or SRM 51-80-01, Figure 1.				
(b)	Install fasteners per BAC5060.				
(c)	Install fasteners per BAC5047.				
(d)	**FOR GROUP 1 ONLY:** As an alternate, install BACB30WQ3K*L + BACN10TN3K with hole diameter .1910 – .1933. Install fasteners per BAC5060. OR Install BACB30WQ3K*LX + BACN10HY3M + BACW10AW3AST with hole diameter .2006 – .2029. Install fasteners per BAC5060. Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank per BAC5504 or SRM 51-80-01, Figure 1. **FOR GROUP 2, LN 2458 – 99999 ONLY:** As an alternate, install BACB30WQ3K*L + BACN10TN3K with hole diameter .1910 – .1933. Install fasteners per BAC5060. Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank per BAC5504 or SRM 51-80-01, Figure 1.				
(e)	As an alternate, if hole requirements cannot be met after original fastener removal, install BACB30LY6A* + BACC30AC6 with hole diameter .2142 – .2162. Install fasteners per BAC5047. Install fasteners wet with BMS5-45 sealant per SRM 51-20-05. Maintain minimum 2D edge margin and minimum 4D spacing unless otherwise specified. Cap seal all fasteners inside fuel tank per BAC5504 or SRM 51-80-01, Figure 1.				

FIGURE 8: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 – CRACK REMOVAL AND REPAIR (SHEET 11 OF 11)

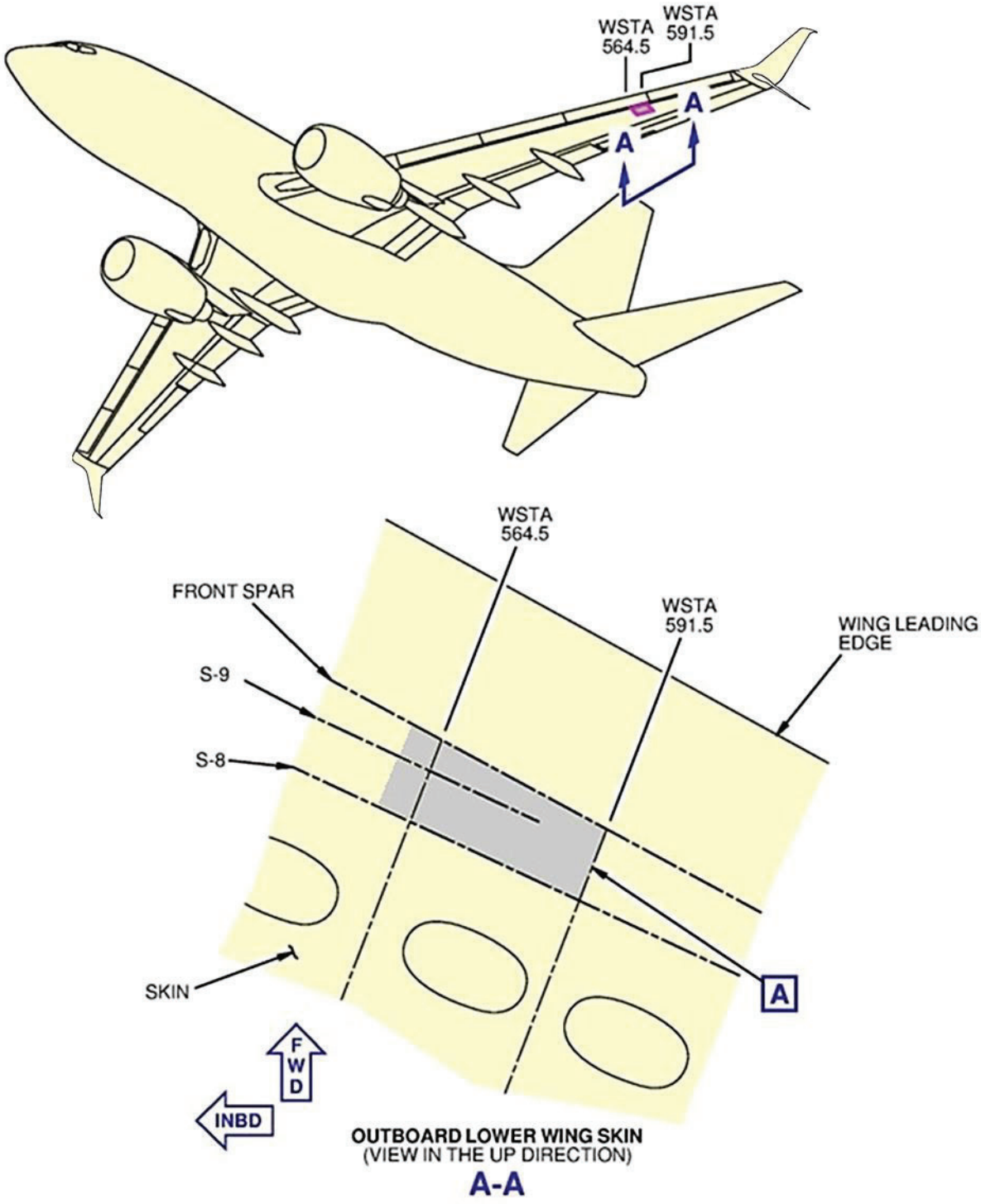


FIGURE 9: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 1 OF 4)

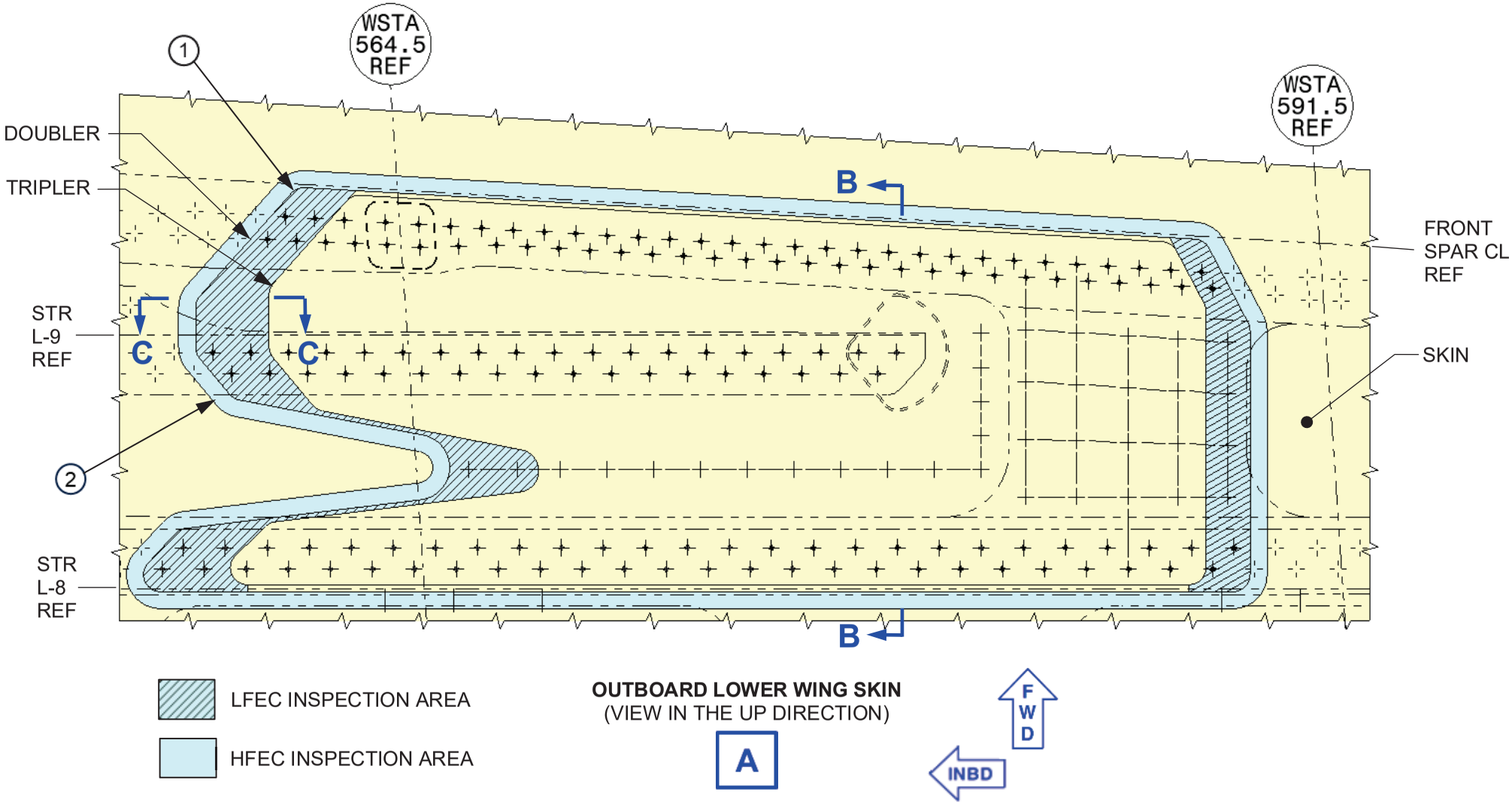


FIGURE 9: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 2 OF 4)

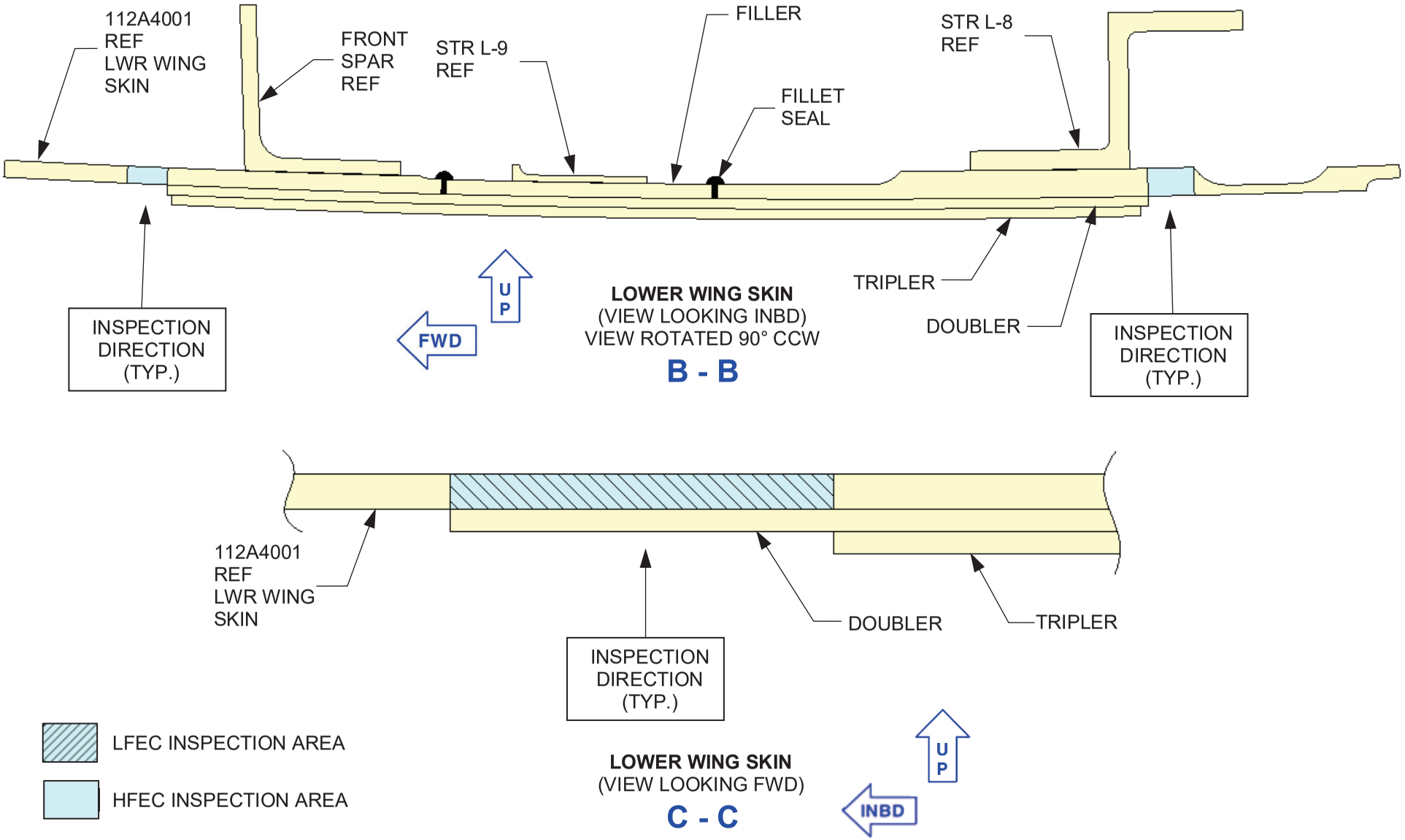


FIGURE 9: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 3 OF 4)

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
2	Inspect	OUTBOARD LOWER WING SKIN	-	-	(b)

(a) Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin panel through the repair doubler at the inboard and outboard ends of the doubler in accordance with 737 NDT Manual Part 6, 51-00-26, for any crack.

(b) Do an external High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin panel at the periphery of the repair doubler per 737 NDT Manual Part 6, 51-00-00 Procedure 4 or Procedure 23, for any crack.

FIGURE 9: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 4 OF 4)

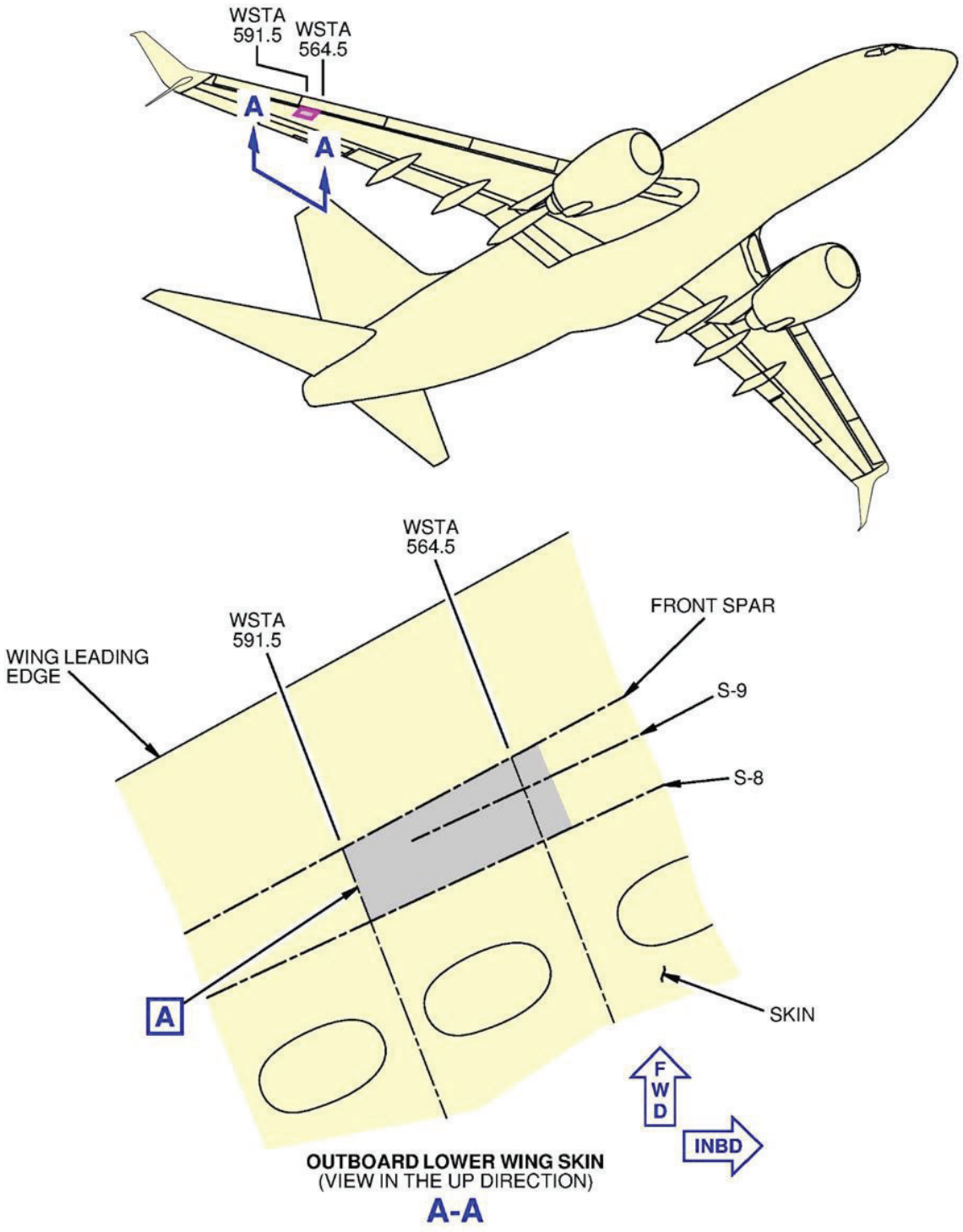


FIGURE 10: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 1 OF 4)

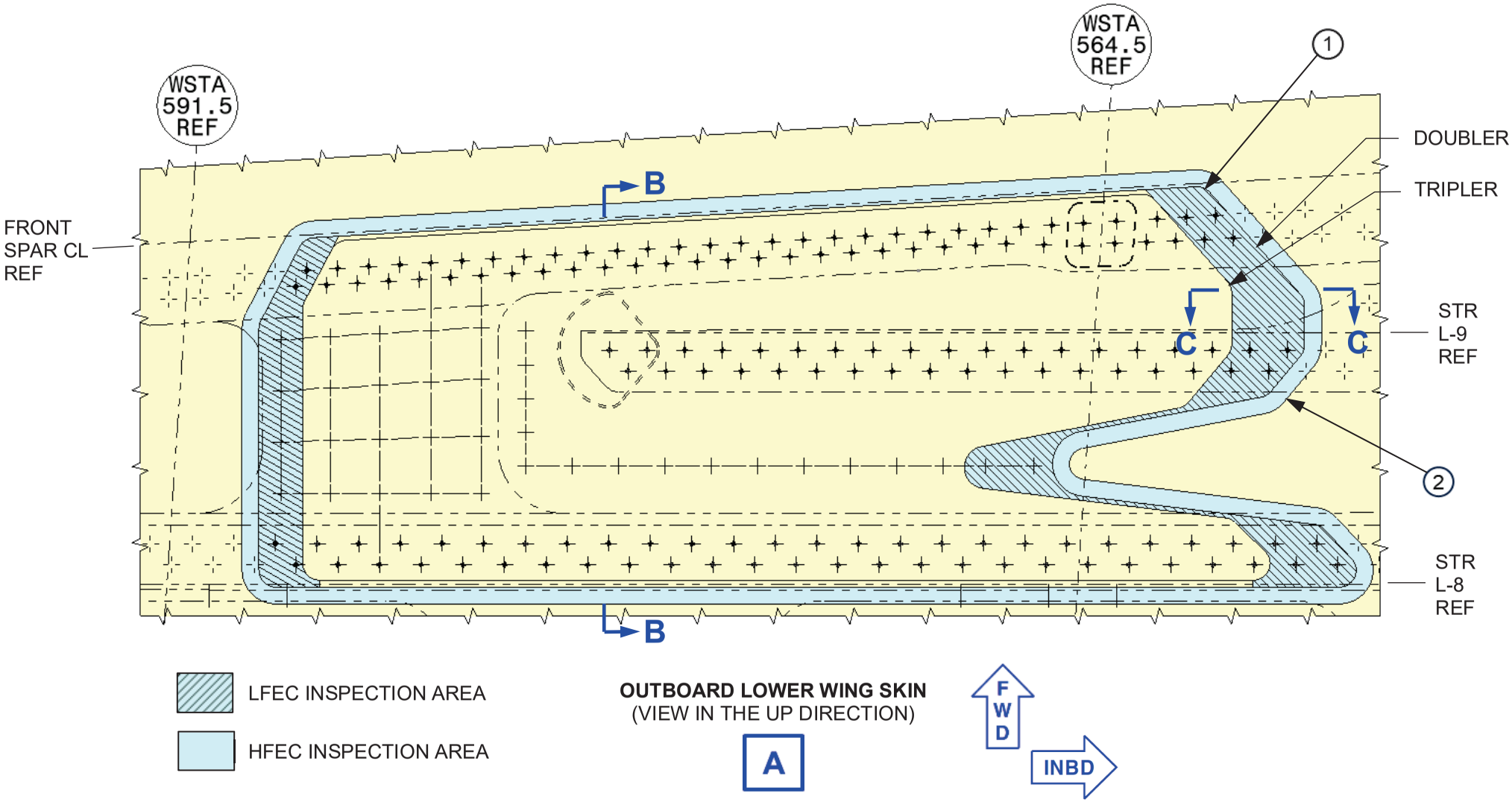


FIGURE 10: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 2 OF 4)

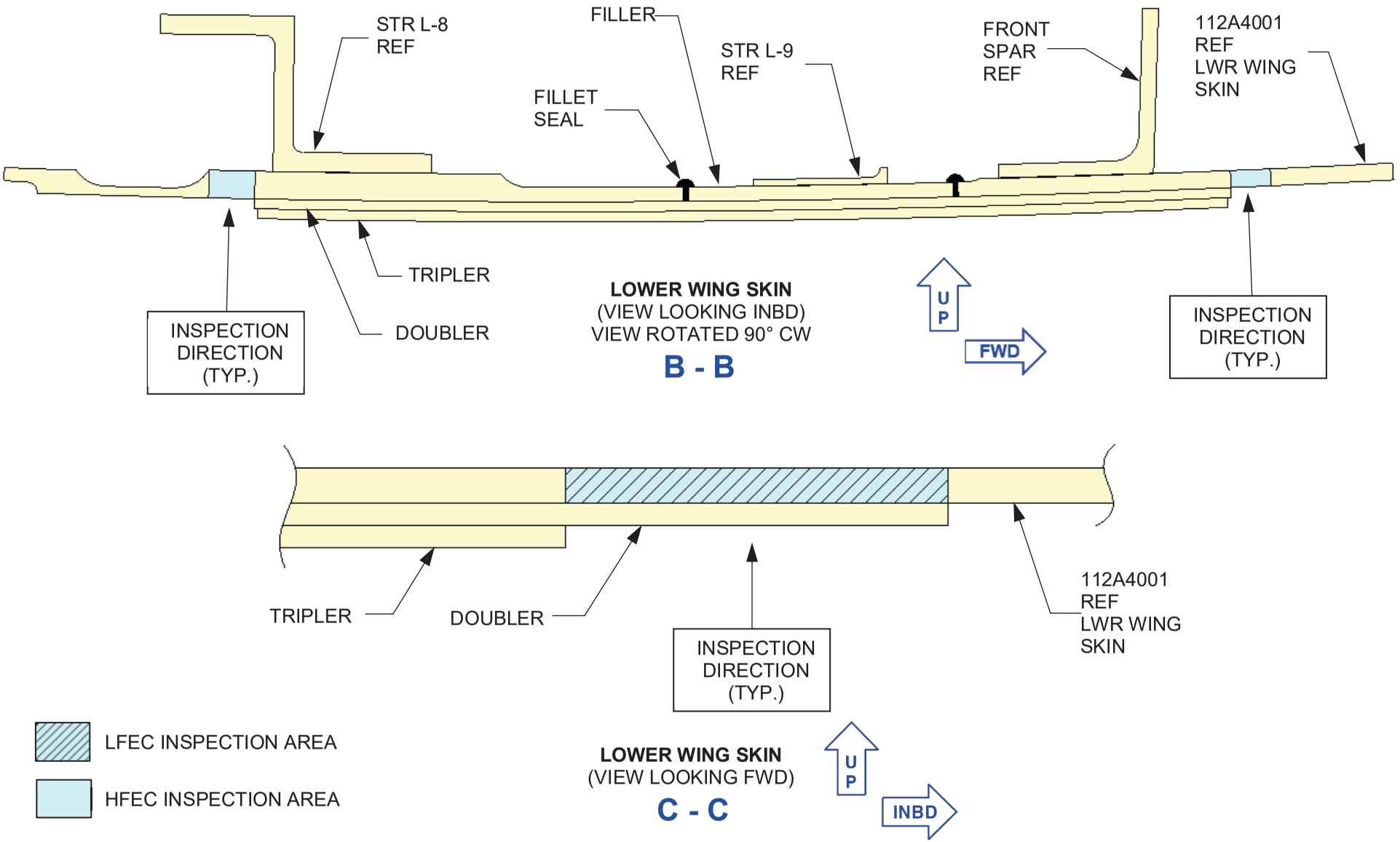


FIGURE 10: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 3 OF 4)

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	OUTBOARD LOWER WING SKIN	-	-	(a)
2	Inspect	OUTBOARD LOWER WING SKIN	-	-	(b)

(a) Do an external surface Low Frequency Eddy Current (LFEC) inspection of the outboard lower wing skin panel through the repair doubler at the inboard and outboard ends of the doubler in accordance with 737 NDT Manual Part 6, 51-00-26, for any crack.

(b) Do an external High Frequency Eddy Current (HFEC) inspection of the outboard lower wing skin panel at the periphery of the repair doubler per 737 NDT Manual Part 6, 51-00-00 Procedure 4 or Procedure 23, for any crack.

FIGURE 10: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – EXTERNAL INSPECTION (SHEET 4 OF 4)

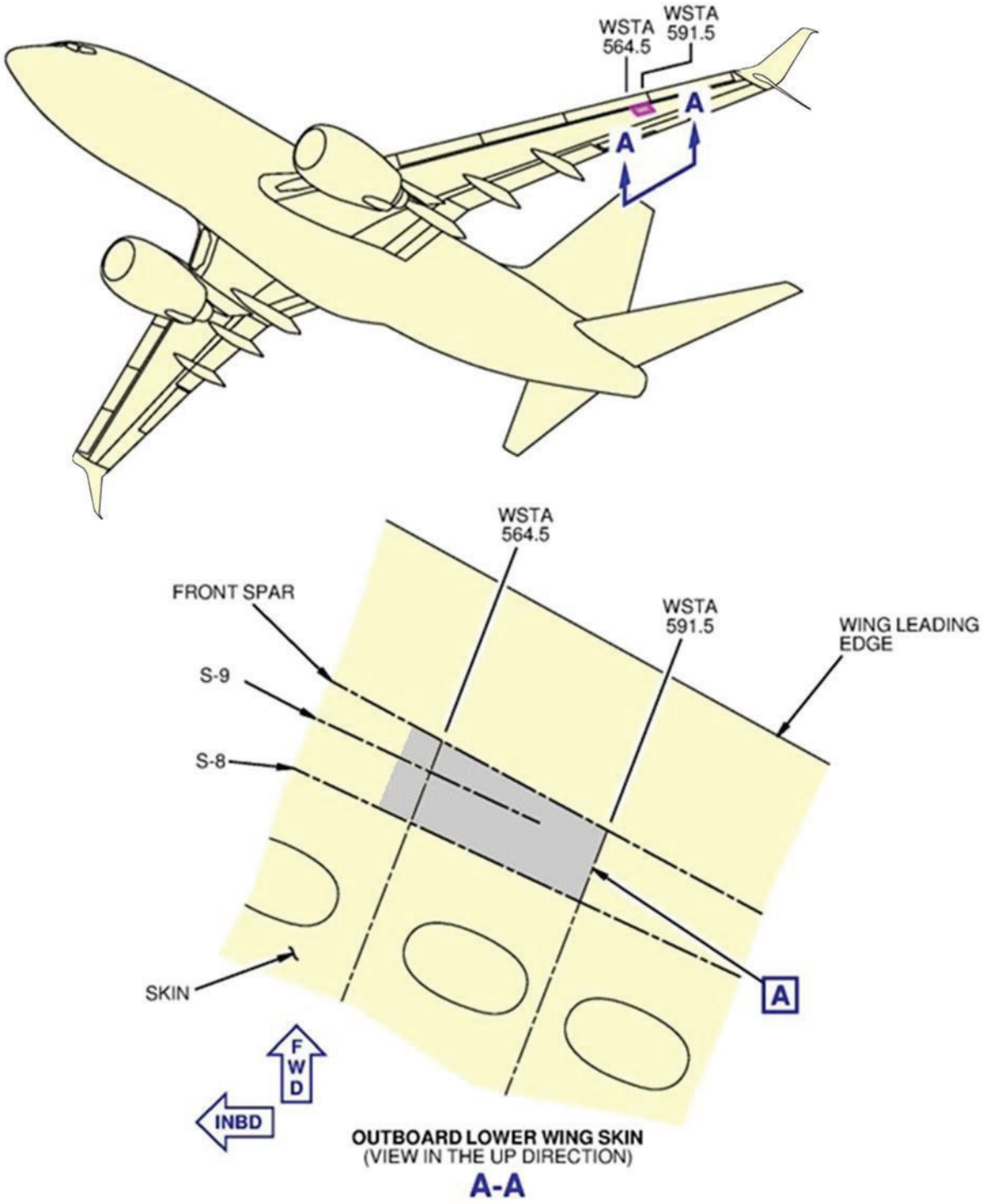


FIGURE 11: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 1 OF 6)

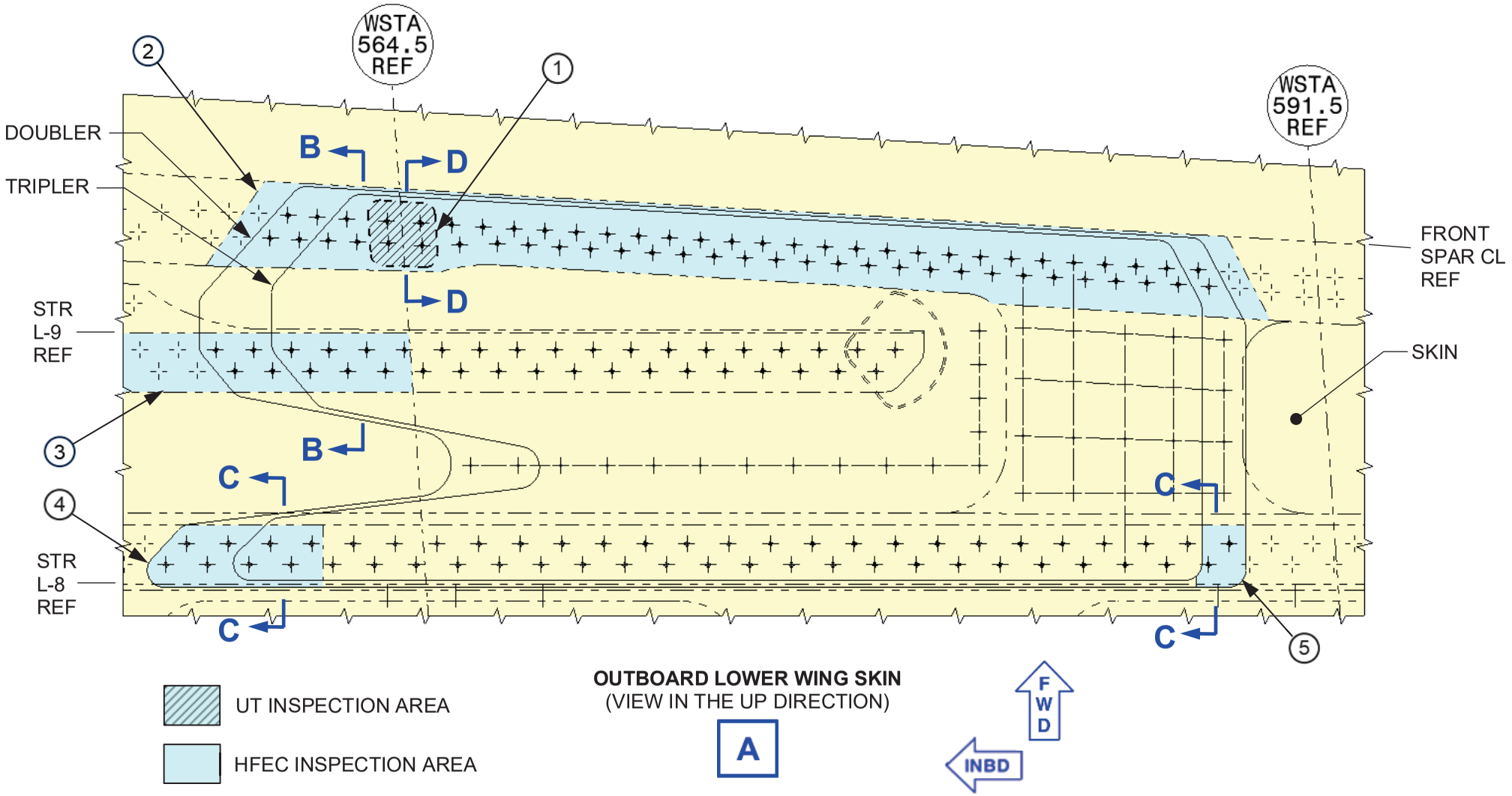


FIGURE 11: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 2 OF 6)

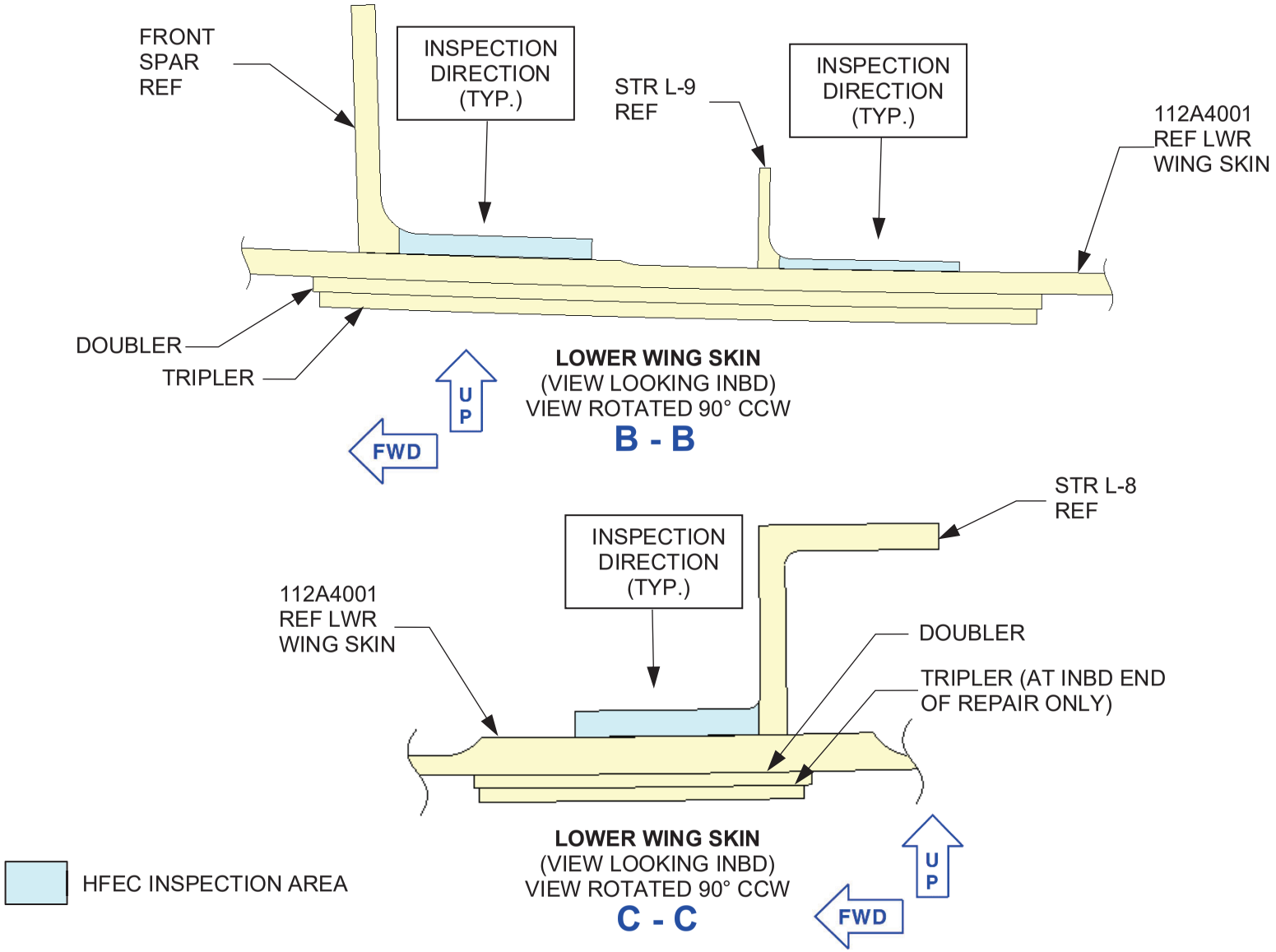


FIGURE 11: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 3 OF 6)

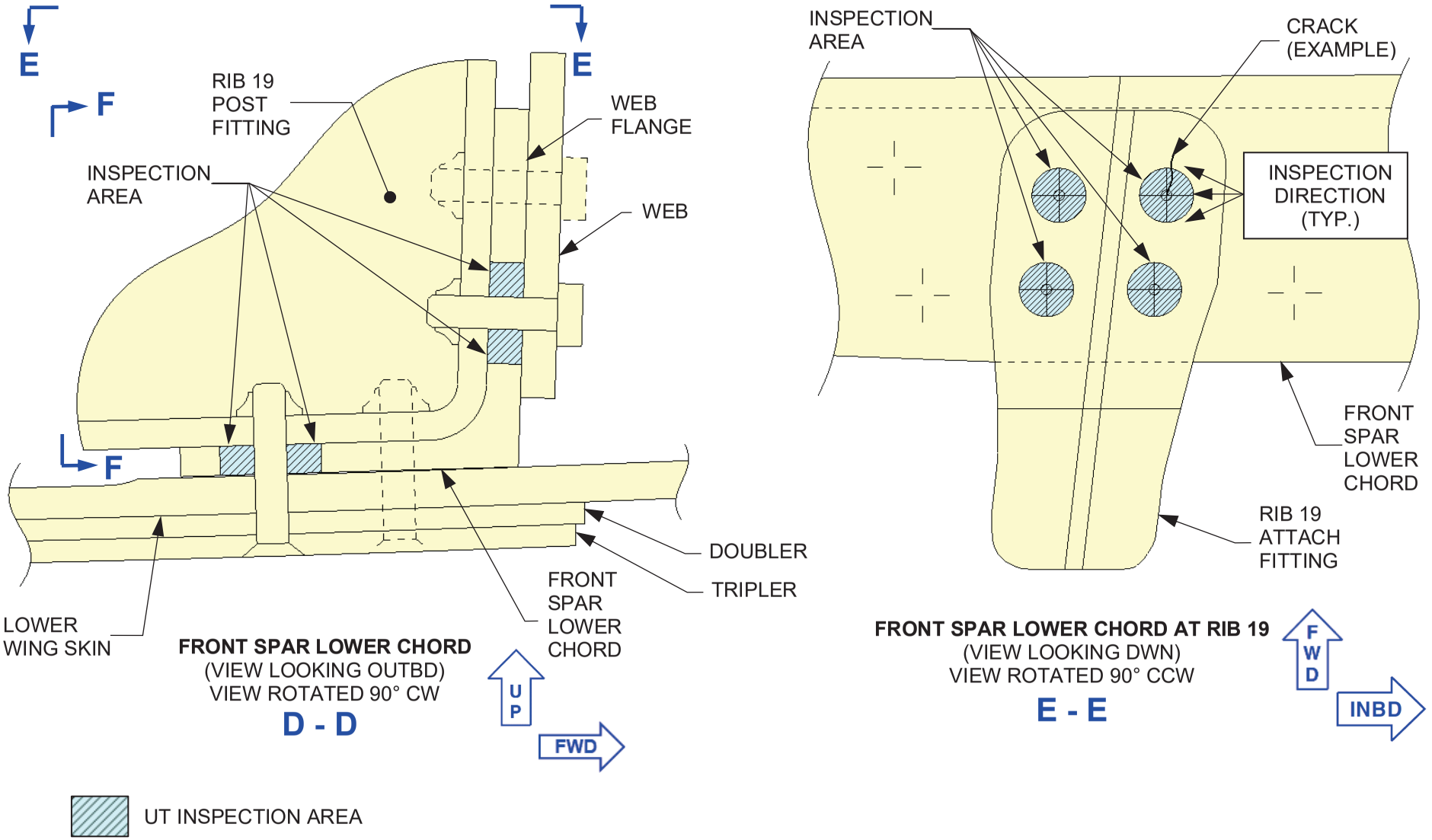


FIGURE 11: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 4 OF 6)

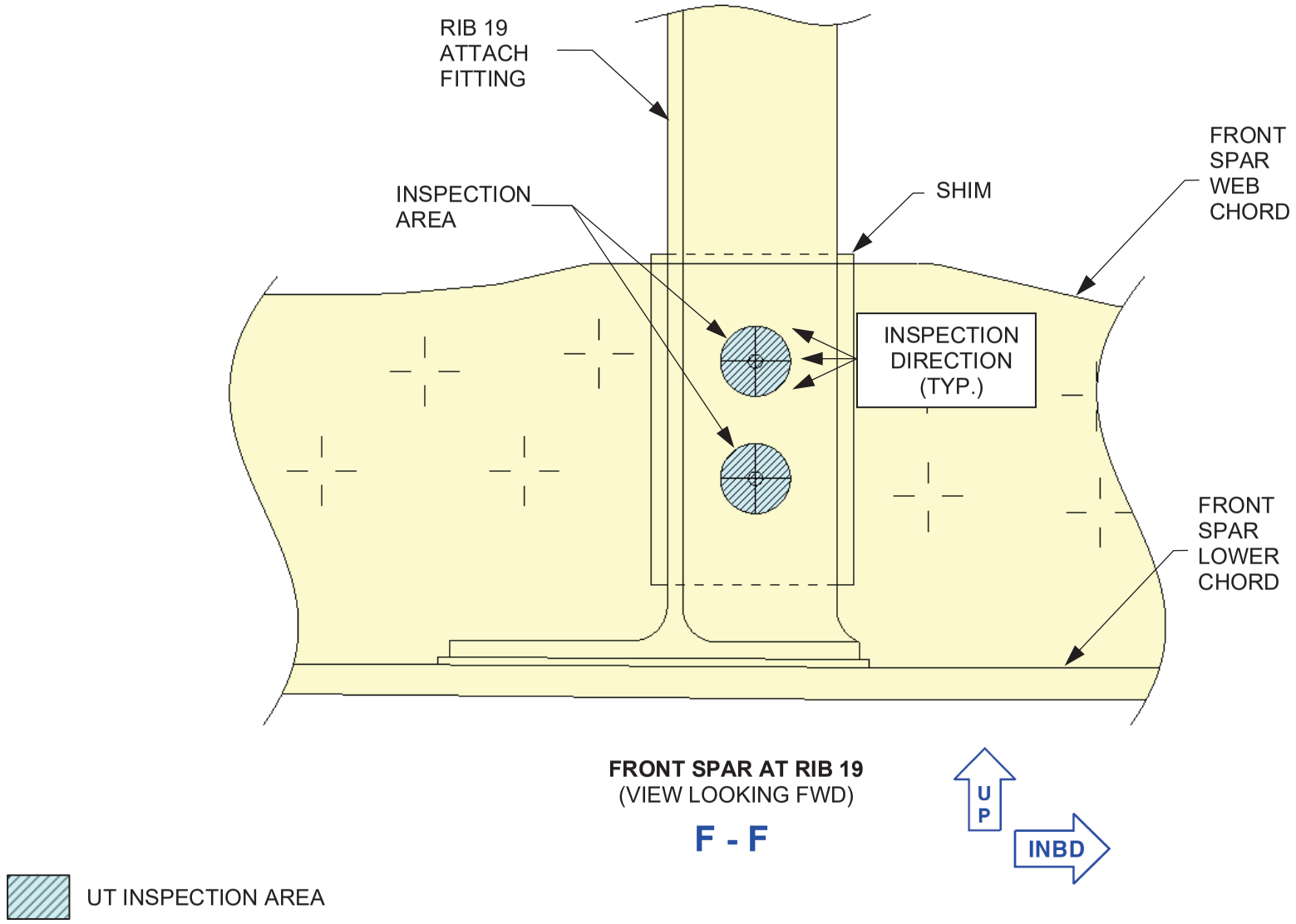


FIGURE 11: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 5 OF 6)

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	HIDDEN FRONT SPAR LOWER CHORD	-	-	(a)
2	Inspect	VISIBLE FRONT SPAR LOWER CHORD	-	-	(b)
3	Inspect	STRINGER 9 SKIN FLANGE	-	-	(c)
4	Inspect	STRINGER 8 SKIN FLANGE	-	-	(d)
5	Inspect	STRINGER 8 SKIN FLANGE	-	-	(e)

(a) Do an internal Ultrasonic Test (UT) inspection of the hidden front spar lower chord at the Rib 19 post per 737 NDT Manual Part 4, 57-10-09, Figure 1.

(b) Do an internal High Frequency Eddy Current (HFEC) inspection of the visible front spar lower chord common to the repair parts and adjacent fasteners (excluding the portion hidden by the Rib 19 post) per 737 NDT Manual Part 6, 51-00-00 Procedure 4 or Procedure 23.

(c) Do an internal HFEC inspection of the stringer L-9 skin flange from two rows of fasteners (four total) inboard of the repair doubler to Rib 19 per 737 NDT Manual Part 6, 57-10-33.

(d) Do an internal HFEC inspection of the stringer L-8 skin flange at the inboard area of the repair doubler and tripler per 737 NDT Manual Part 6, 57-10-73.

(e) Do an internal HFEC inspection of the stringer L-8 skin flange at the outboard area of the repair doubler per 737 NDT Manual Part 6, 57-10-94.

FIGURE 11: LEFT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 6 OF 6)

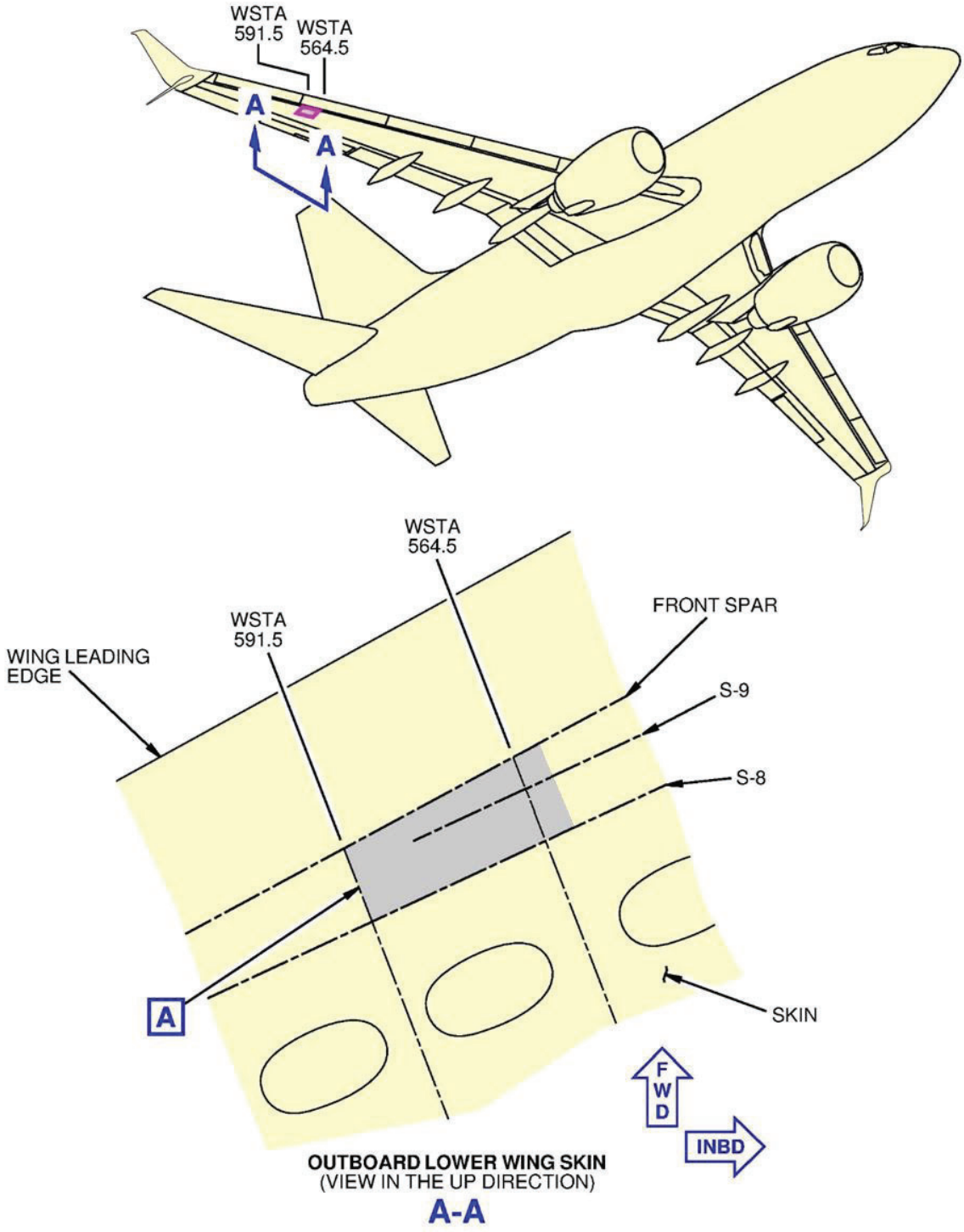


FIGURE 12: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 1 OF 6)

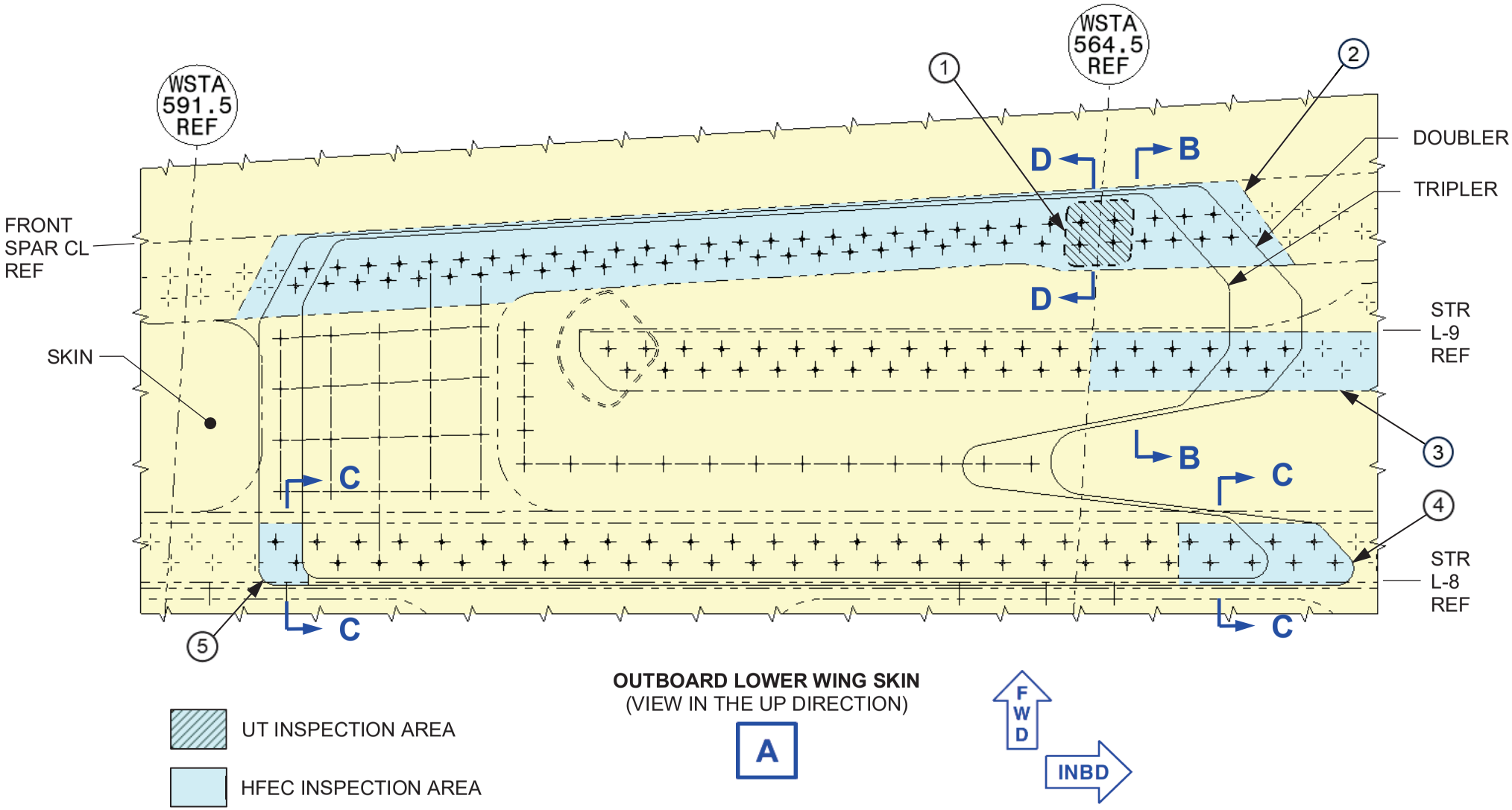


FIGURE 12: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 2 OF 6)

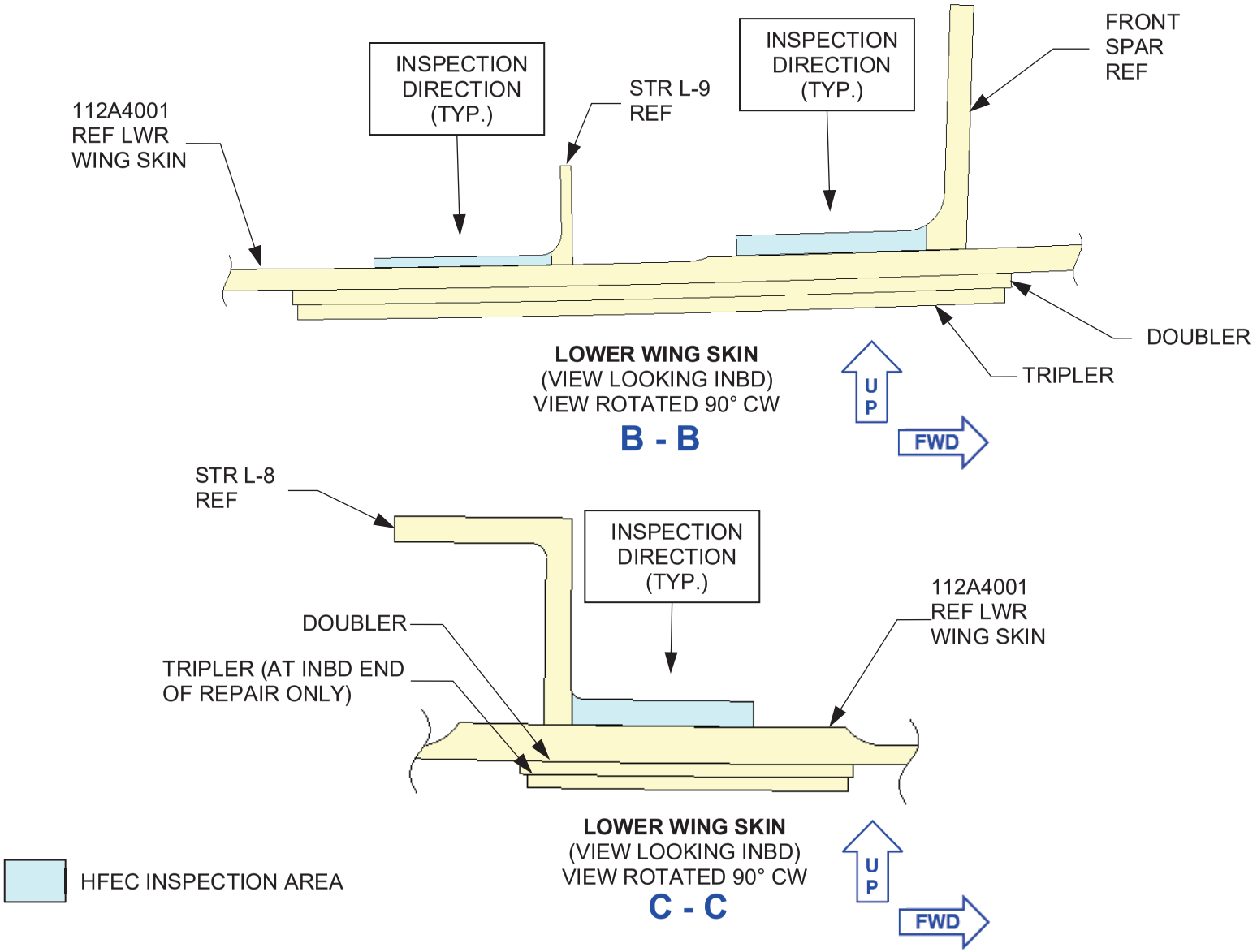


FIGURE 12: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 3 OF 6)

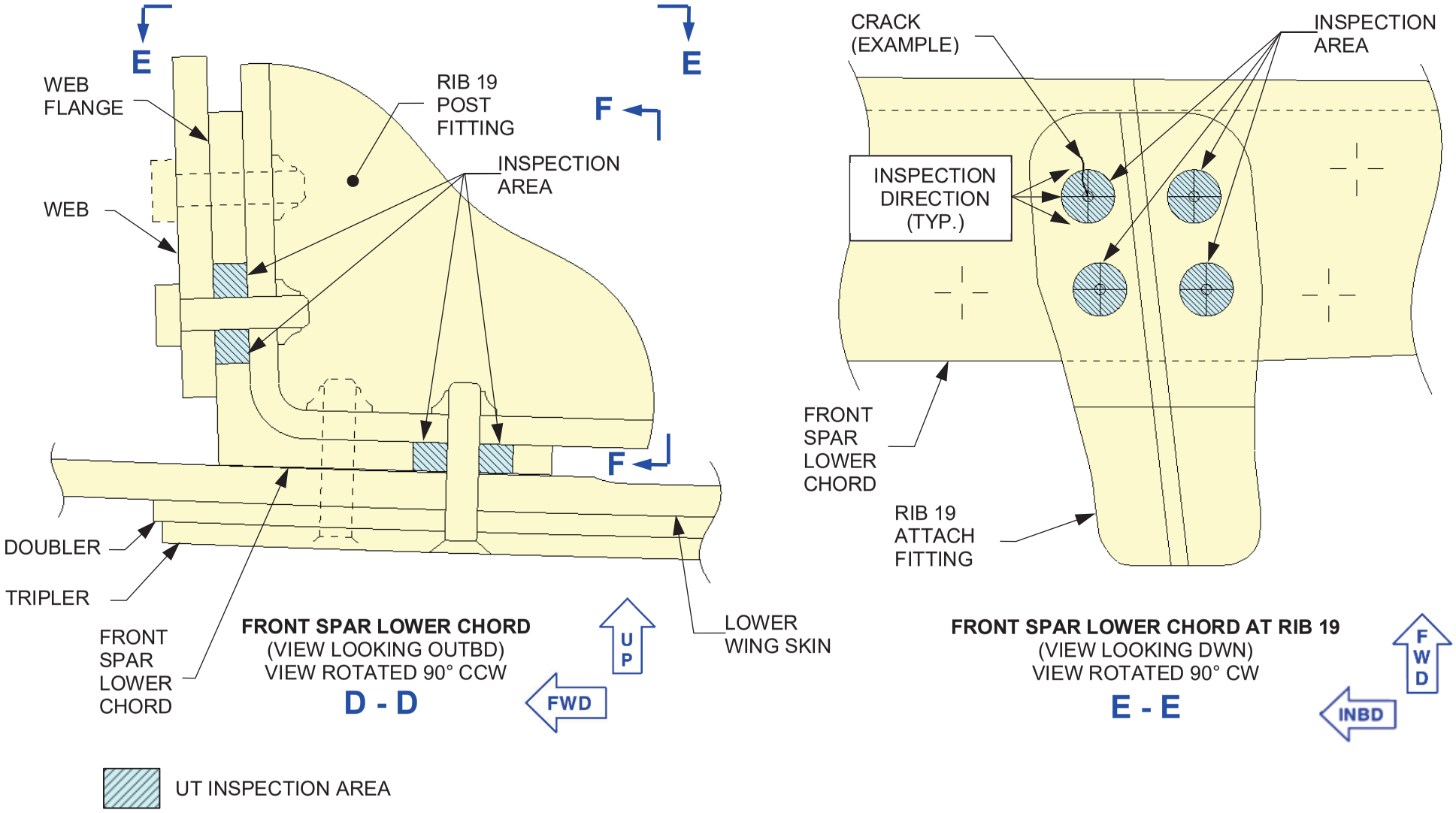


FIGURE 12: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 4 OF 6)

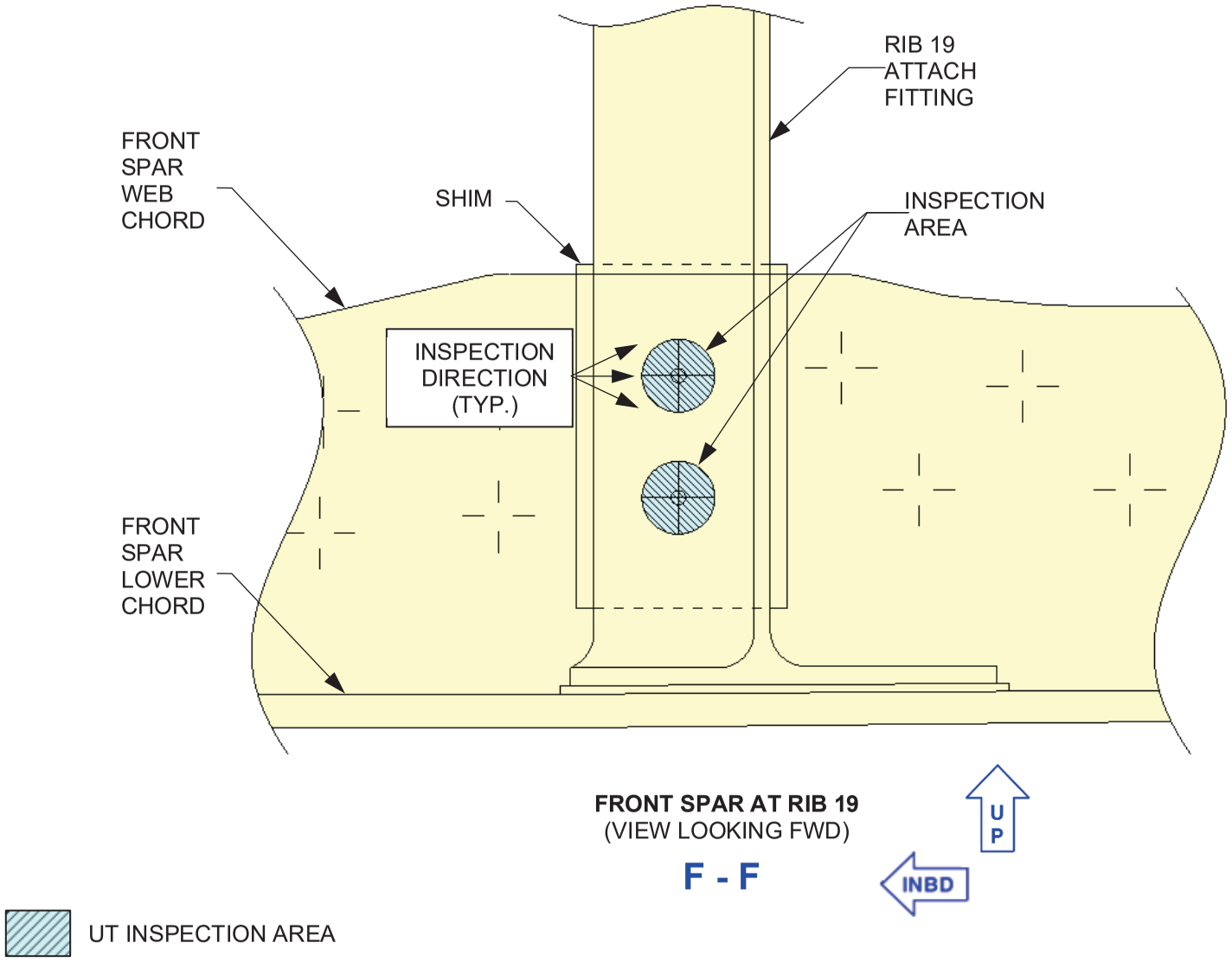


FIGURE 12: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 5 OF 6)

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for this figure.

Step	Task	Name	Identification	Qty	More Data
1	Inspect	HIDDEN FRONT SPAR LOWER CHORD	-	-	(a)
2	Inspect	VISIBLE FRONT SPAR LOWER CHORD	-	-	(b)
3	Inspect	STRINGER 9 SKIN FLANGE	-	-	(c)
4	Inspect	STRINGER 8 SKIN FLANGE	-	-	(d)
5	Inspect	STRINGER 8 SKIN FLANGE	-	-	(e)

(a) Do an internal Ultrasonic Test (UT) inspection of the hidden front spar lower chord at the Rib 19 post per 737 NDT Manual Part 4, 57-10-09, Figure 1.

(b) Do an internal High Frequency Eddy Current (HFEC) inspection of the visible front spar lower chord common to the repair parts and adjacent fasteners (excluding the portion hidden by the Rib 19 post) per 737 NDT Manual Part 6, 51-00-00 Procedure 4 or Procedure 23.

(c) Do an internal HFEC inspection of the stringer L-9 skin flange from two rows of fasteners (four total) inboard of the repair doubler to Rib 19 per 737 NDT Manual Part 6, 57-10-33.

(d) Do an internal HFEC inspection of the stringer L-8 skin flange at the inboard area of the repair doubler and tripler per 737 NDT Manual Part 6, 57-10-73.

(e) Do an internal HFEC inspection of the stringer L-8 skin flange at the outboard area of the repair doubler per 737 NDT Manual Part 6, 57-10-94.

FIGURE 12: RIGHT WING – OUTBD LWR WING SKIN AT STRINGER S-9 REPAIR – INTERNAL INSPECTION (SHEET 6 OF 6)

This Appendix applies only to: Group 1.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

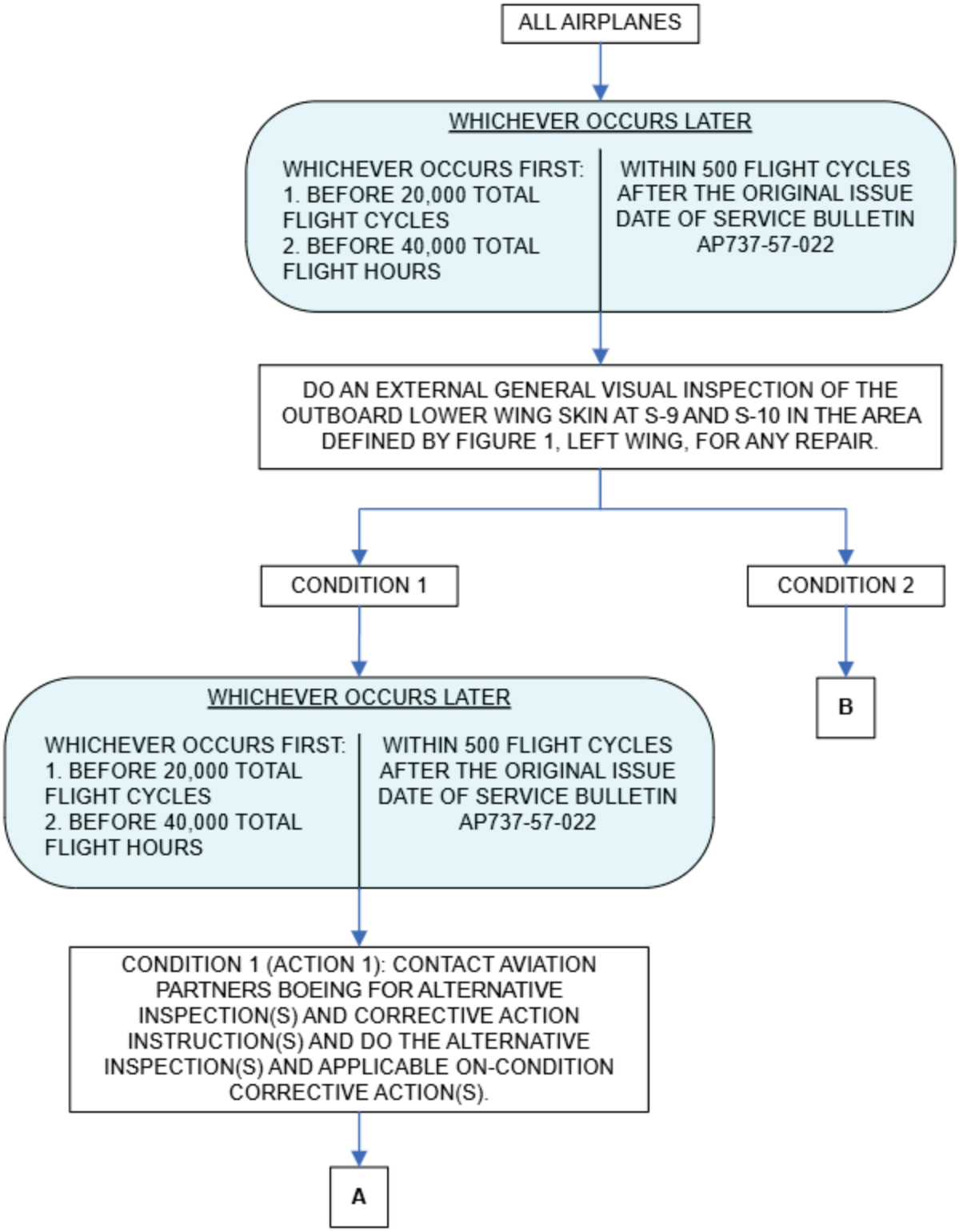
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 1	ANY REPAIR FOUND
CONDITION 1.1	NO CRACK FOUND
CONDITION 1.2	ANY CRACK FOUND
CONDITION 2	NO REPAIR FOUND
CONDITION 2.1	NO CRACK FOUND AT S-9
CONDITION 2.2	ANY CRACK FOUND AT S-9
CONDITION 2.2.1	NON-REMOVABLE CRACKS FOUND AT S-9
CONDITION 2.2.2	REMOVABLE CRACKS FOUND AT S-9
CONDITION 2.2.2.1	POST REPAIR CRACK FOUND AT S-9
CONDITION 2.3	NO CRACK FOUND AT S-10
CONDITION 2.4	ANY CRACK FOUND AT S-10

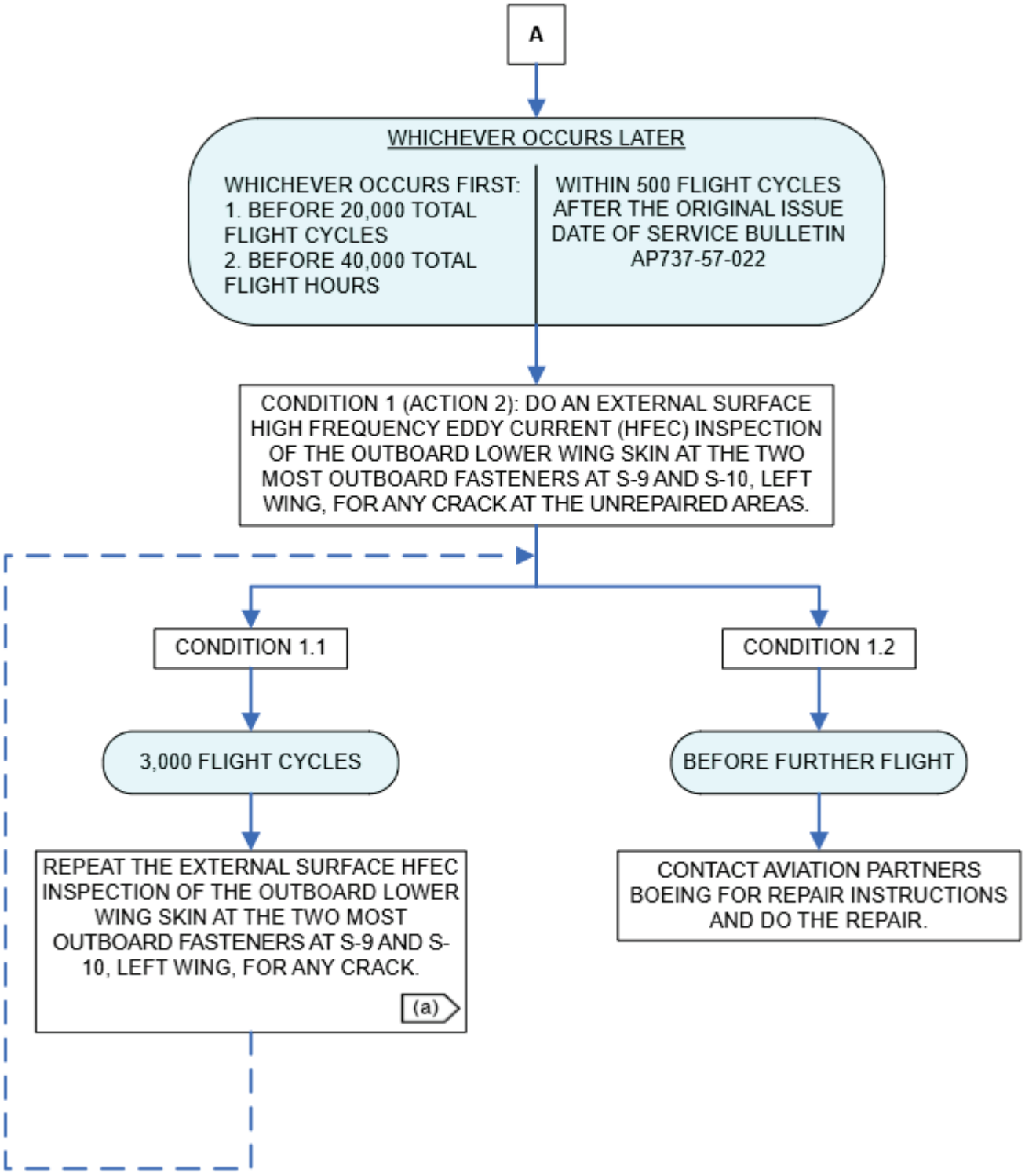
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

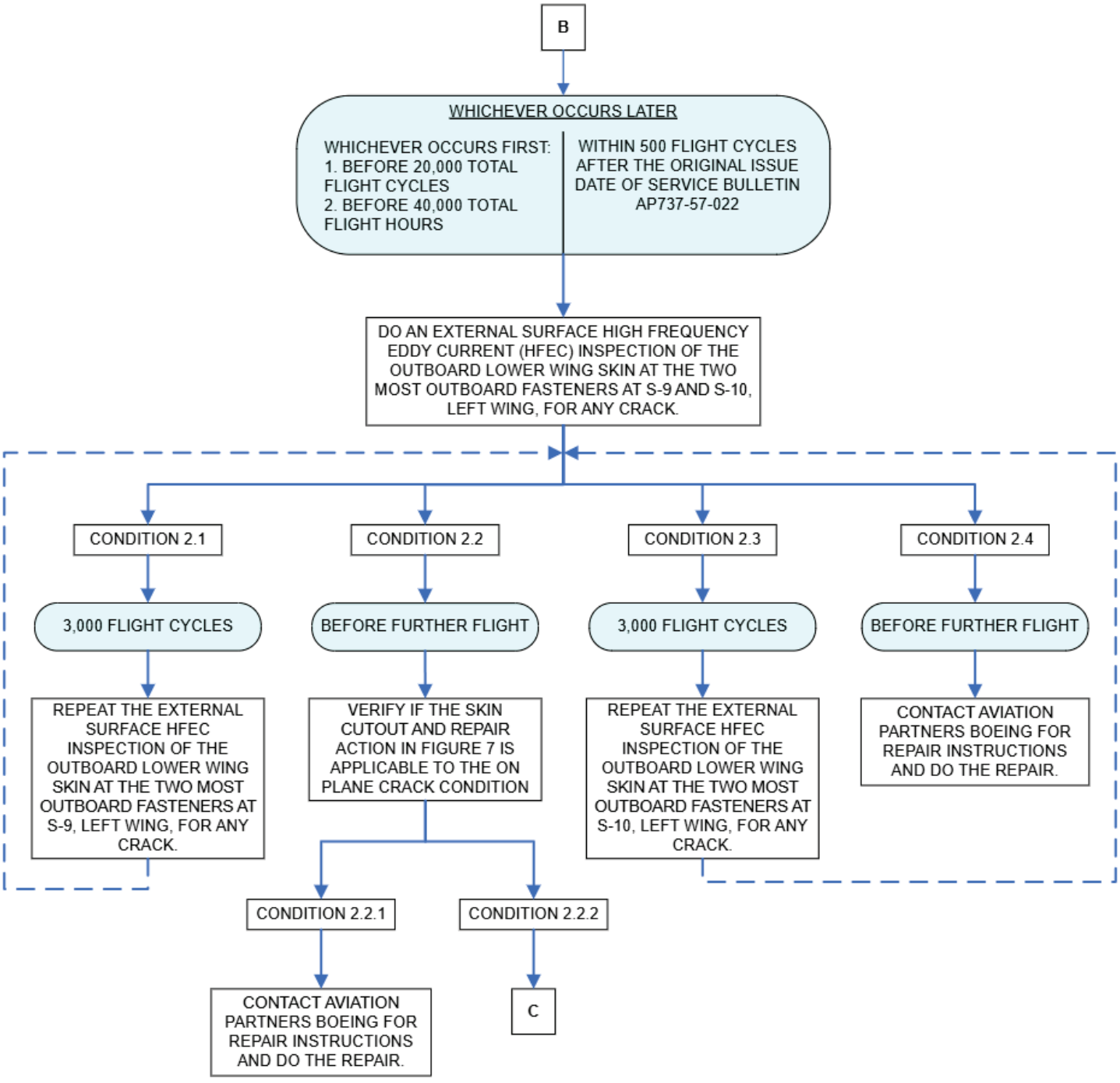
APPENDIX A: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 1: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 5)



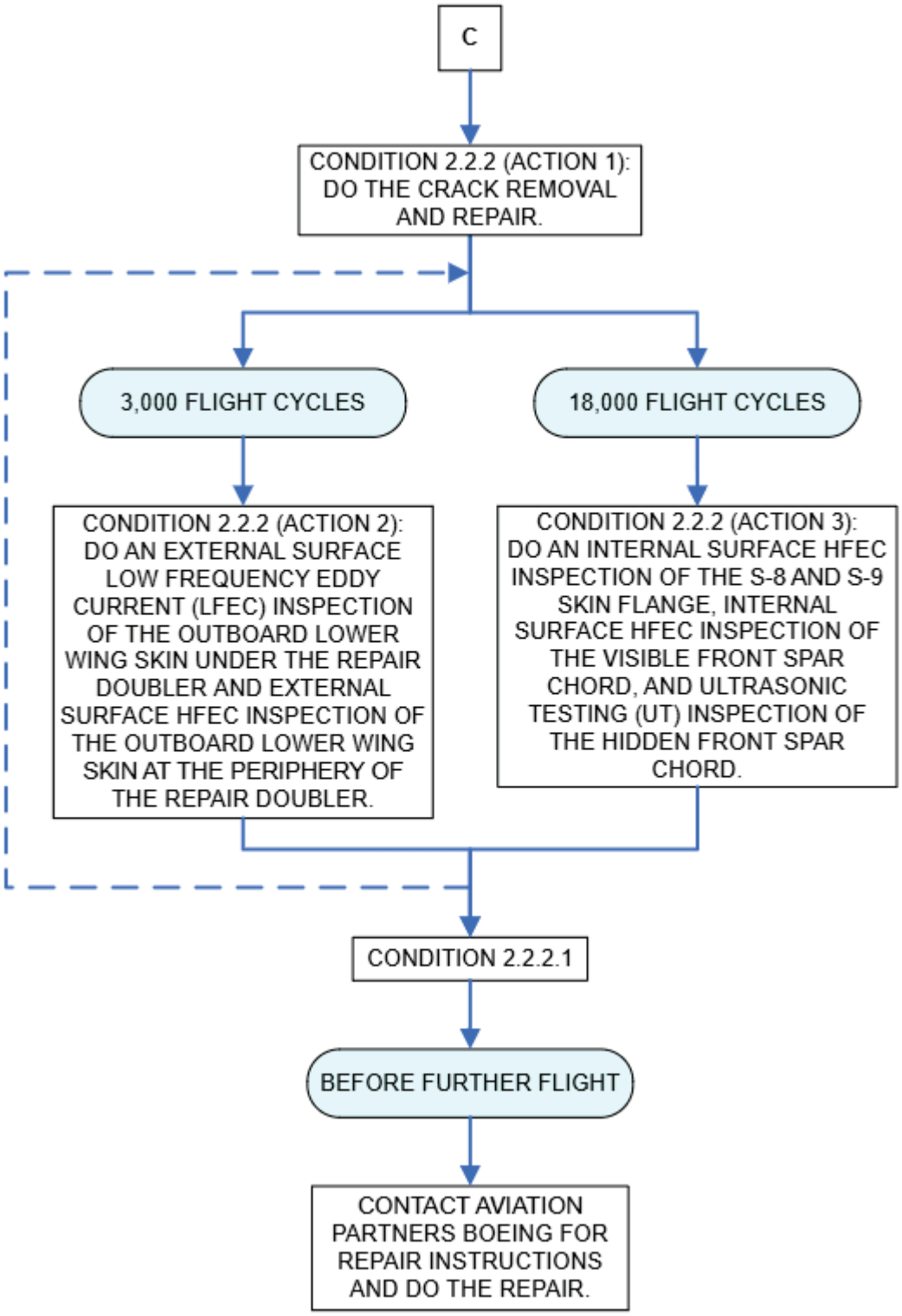
APPENDIX A: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 1: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 5)



APPENDIX A: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 1: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 5)



APPENDIX A: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 1: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 5)



APPENDIX A: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 1: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 5 OF 5)

This Appendix applies only to: Group 1.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

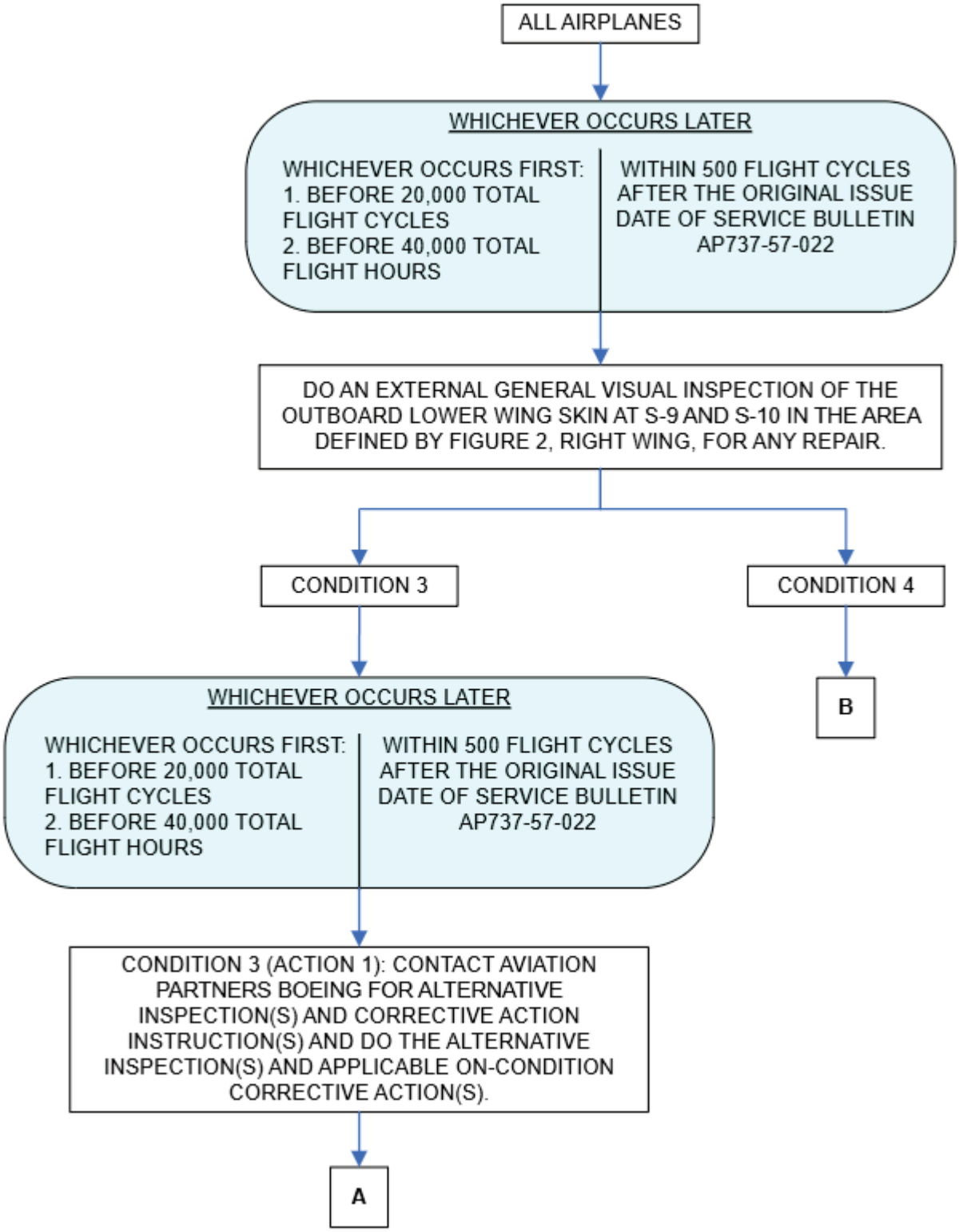
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 3	ANY REPAIR FOUND
CONDITION 3.1	NO CRACK FOUND
CONDITION 3.2	ANY CRACK FOUND
CONDITION 4	NO REPAIR FOUND
CONDITION 4.1	NO CRACK FOUND AT S-9
CONDITION 4.2	ANY CRACK FOUND AT S-9
CONDITION 4.2.1	REMOVABLE CRACKS FOUND AT S-9
CONDITION 4.2.2	NON-REMOVABLE CRACKS FOUND AT S-9
CONDITION 4.2.2.1	POST REPAIR CRACK FOUND AT S-9
CONDITION 4.3	NO CRACK FOUND AT S-10
CONDITION 4.4	ANY CRACK FOUND AT S-10

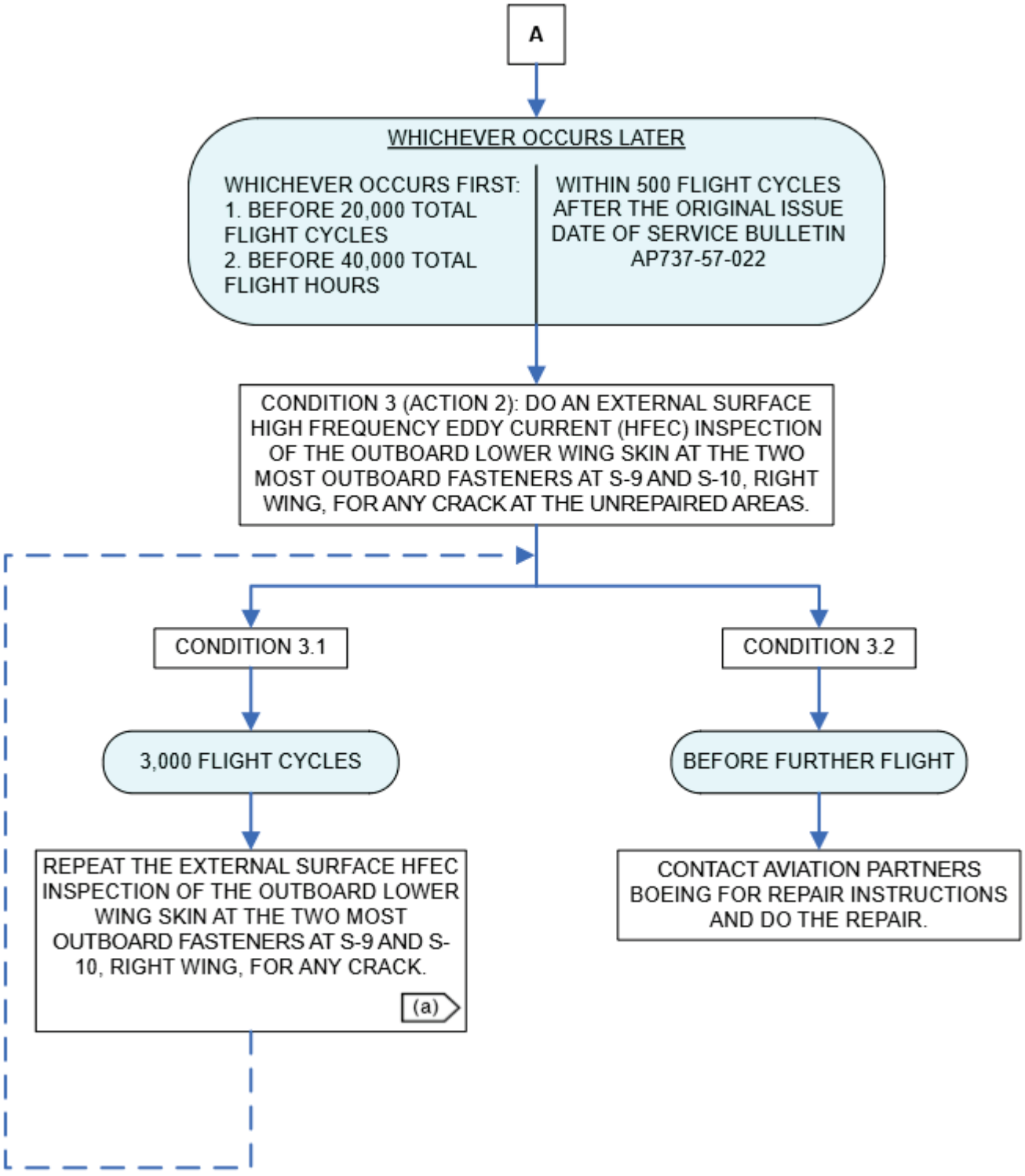
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

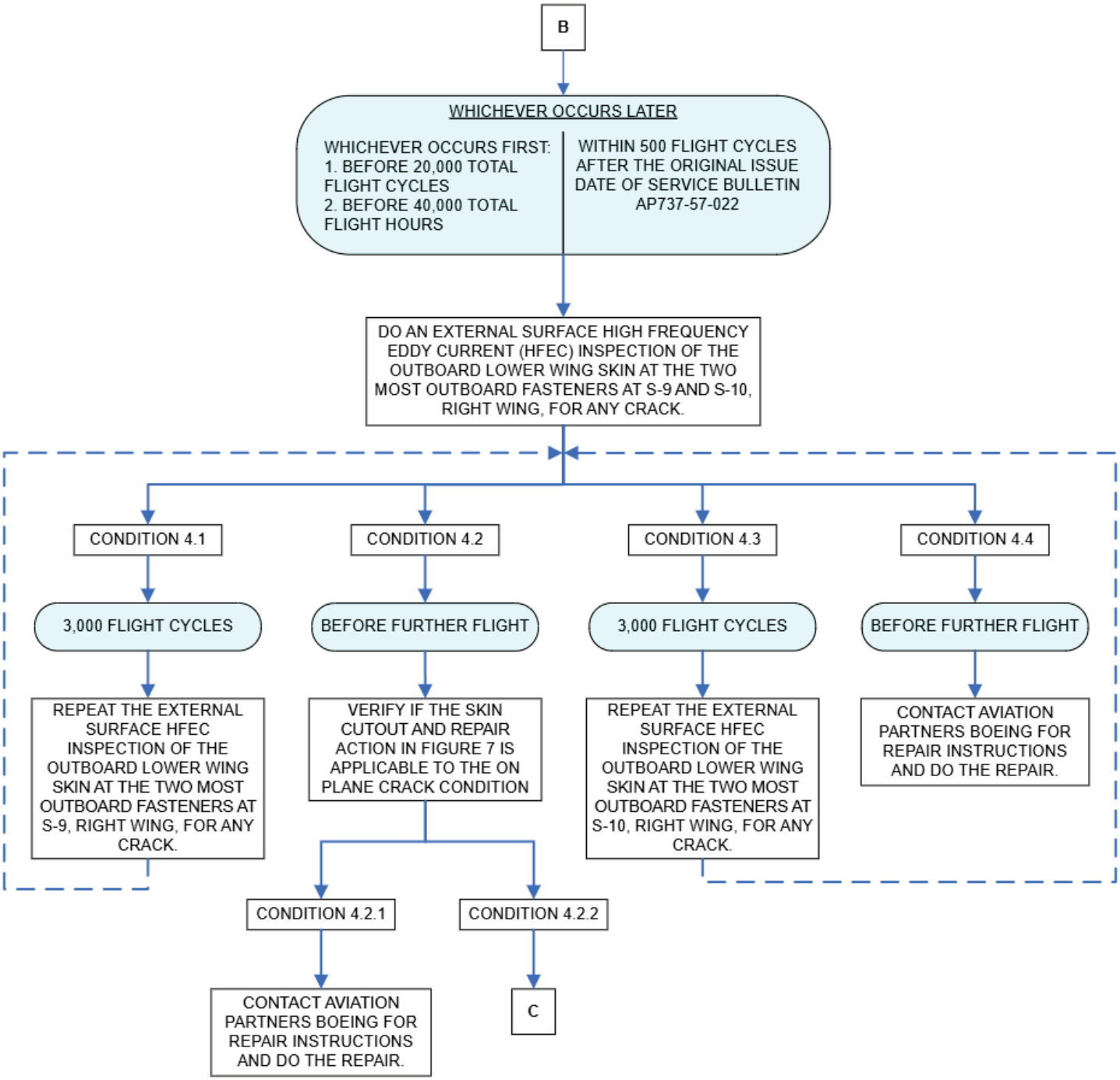
APPENDIX B: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 2: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 5)



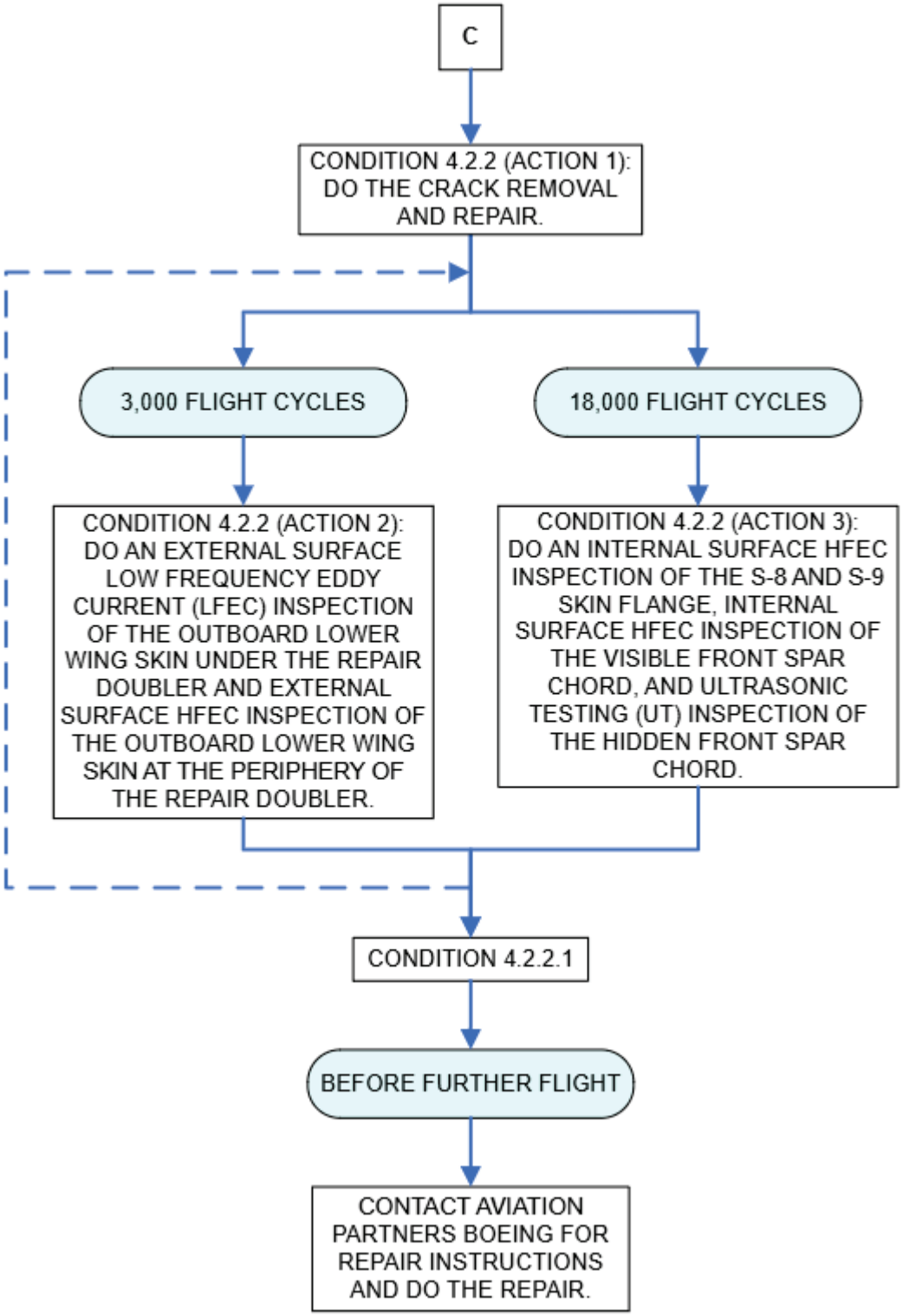
APPENDIX B: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 2: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 5)



APPENDIX B: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 2: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 5)



APPENDIX B: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 2: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 5)



APPENDIX B: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 2: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 5 OF 5)

This Appendix applies only to: Group 2.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

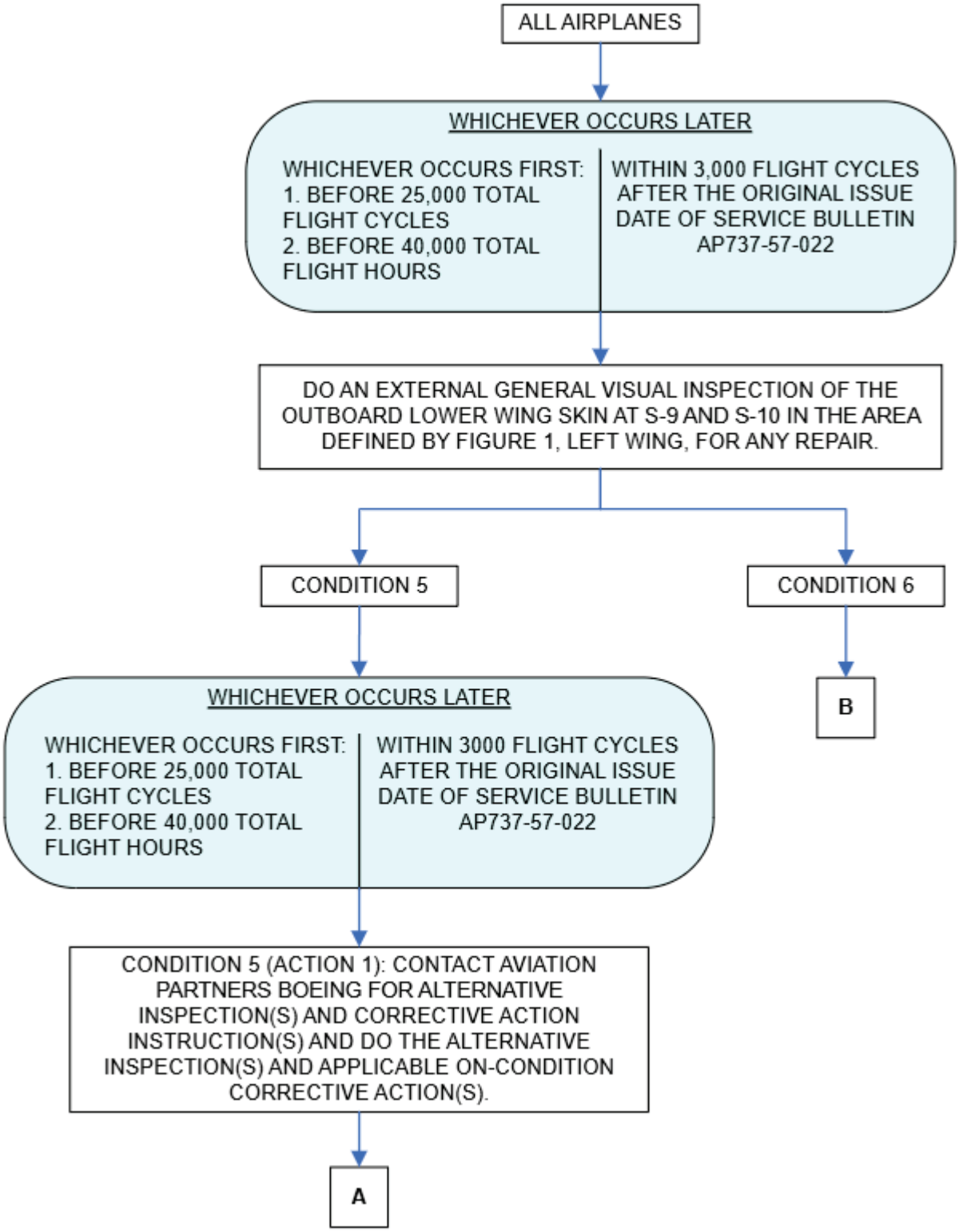
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 5	ANY REPAIR FOUND
CONDITION 5.1	NO CRACK FOUND
CONDITION 5.2	ANY CRACK FOUND
CONDITION 6	NO REPAIR FOUND
CONDITION 6.1	NO CRACK FOUND AT S-9
CONDITION 6.2	ANY CRACK FOUND AT S-9
CONDITION 6.2.1	NON-REMOVABLE CRACKS FOUND AT S-9
CONDITION 6.2.2	REMOVABLE CRACKS FOUND AT S-9
CONDITION 6.2.2.1	POST REPAIR CRACK FOUND AT S-9
CONDITION 6.3	NO CRACK FOUND AT S-10
CONDITION 6.4	ANY CRACK FOUND AT S-10

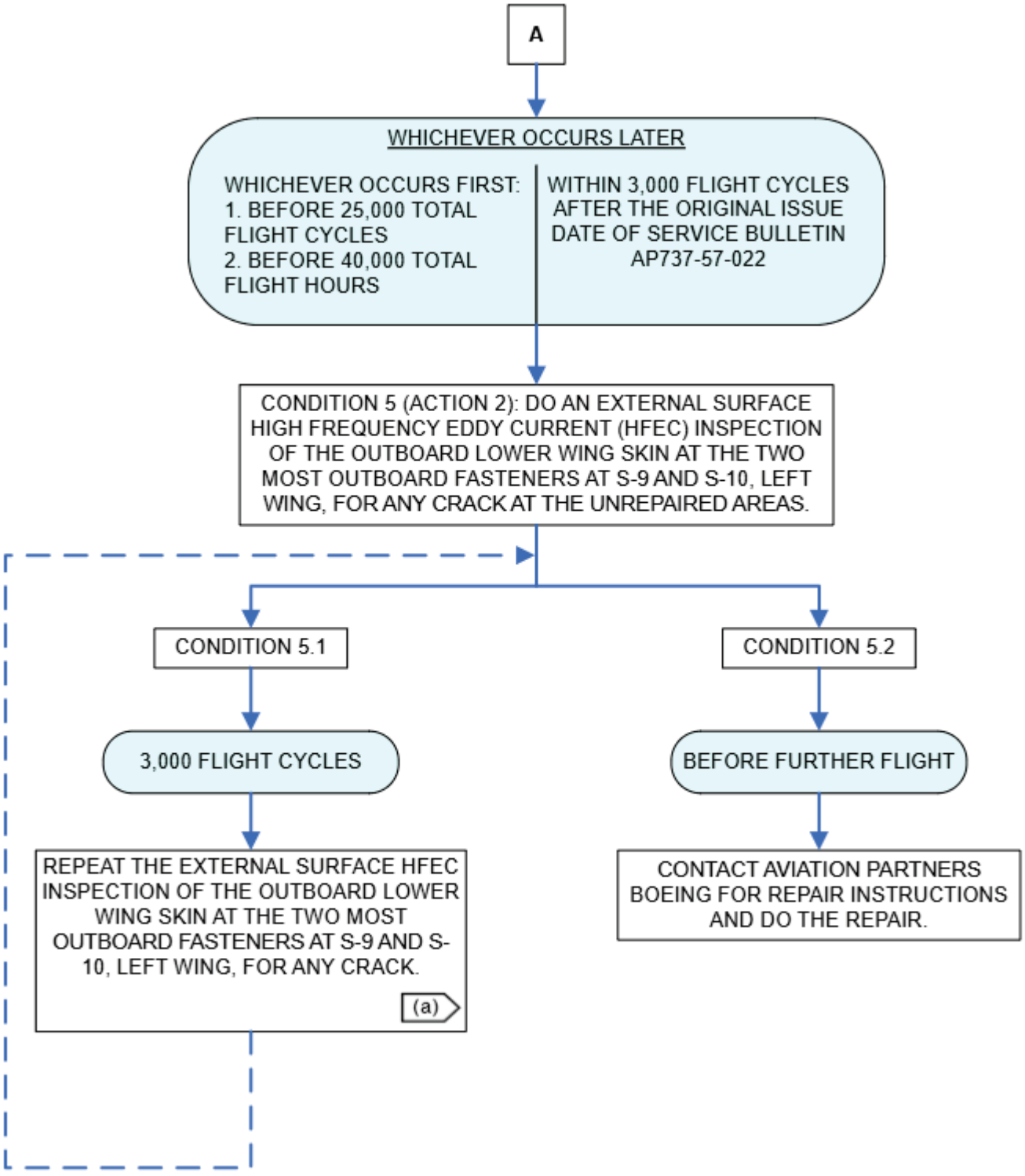
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

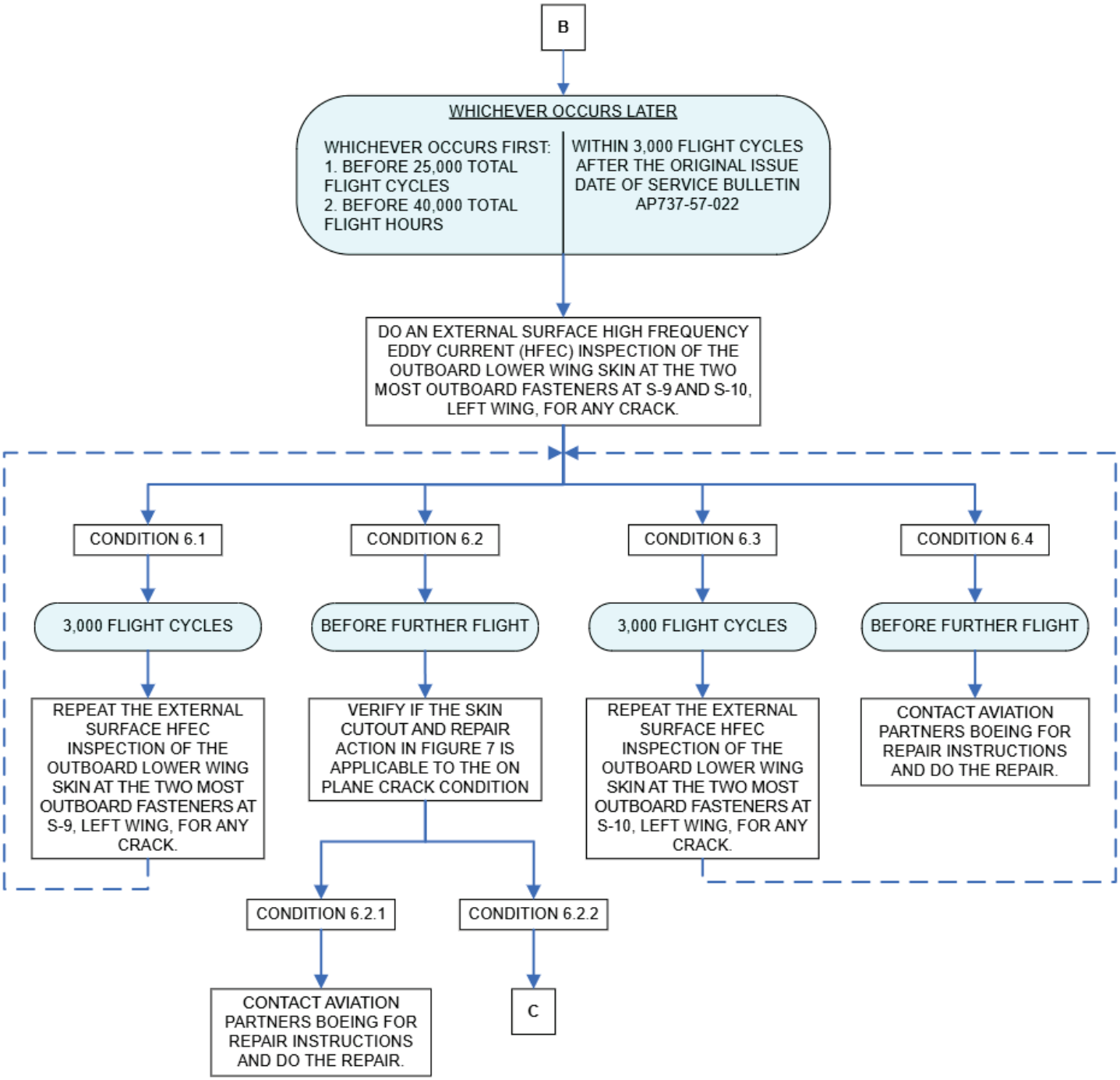
APPENDIX C: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 3: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 5)



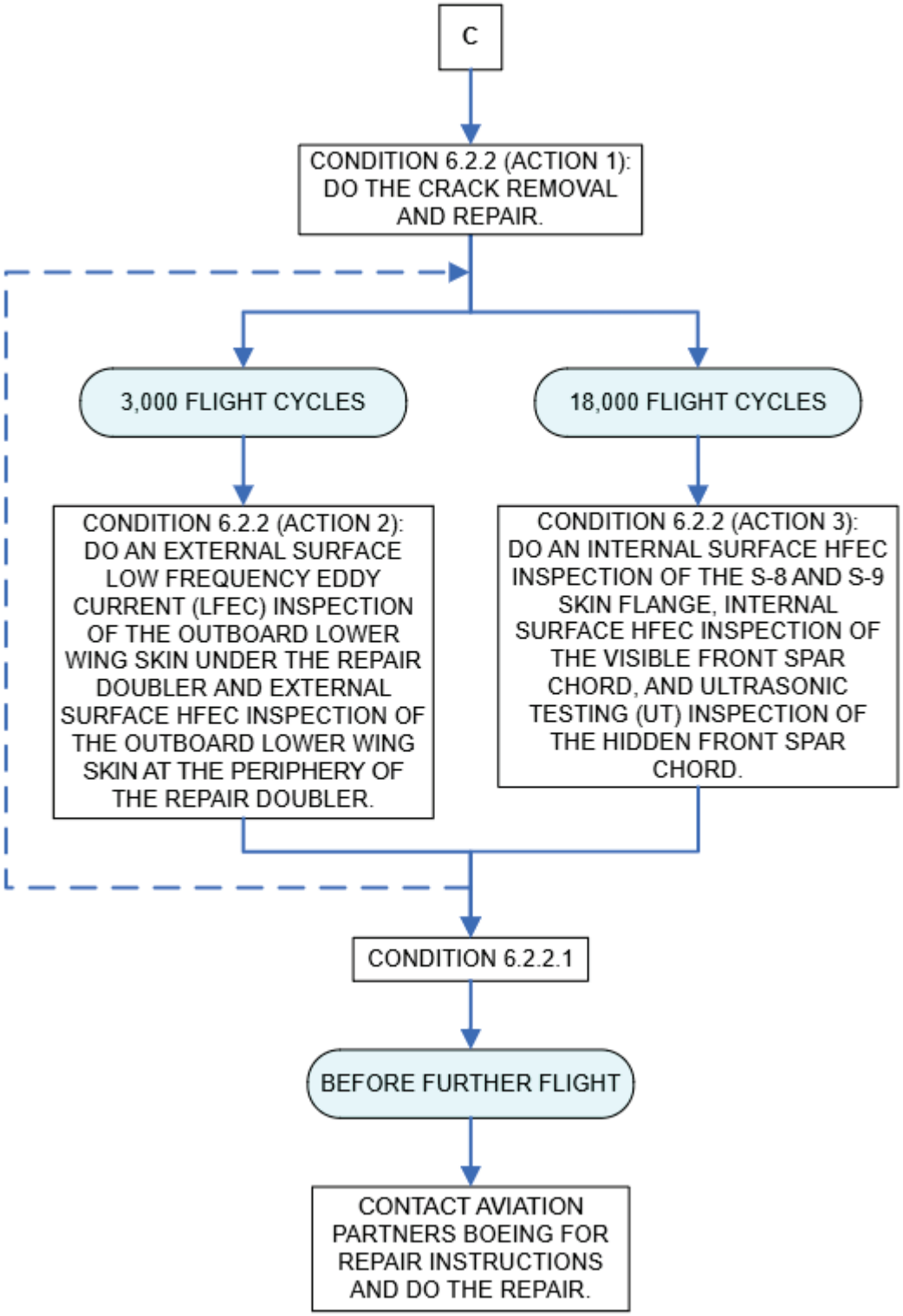
APPENDIX C: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 3: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 5)



APPENDIX C: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 3: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 5)



APPENDIX C: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 3: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 5)



APPENDIX C: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 3: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 5 OF 5)

This Appendix applies only to: Group 2.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

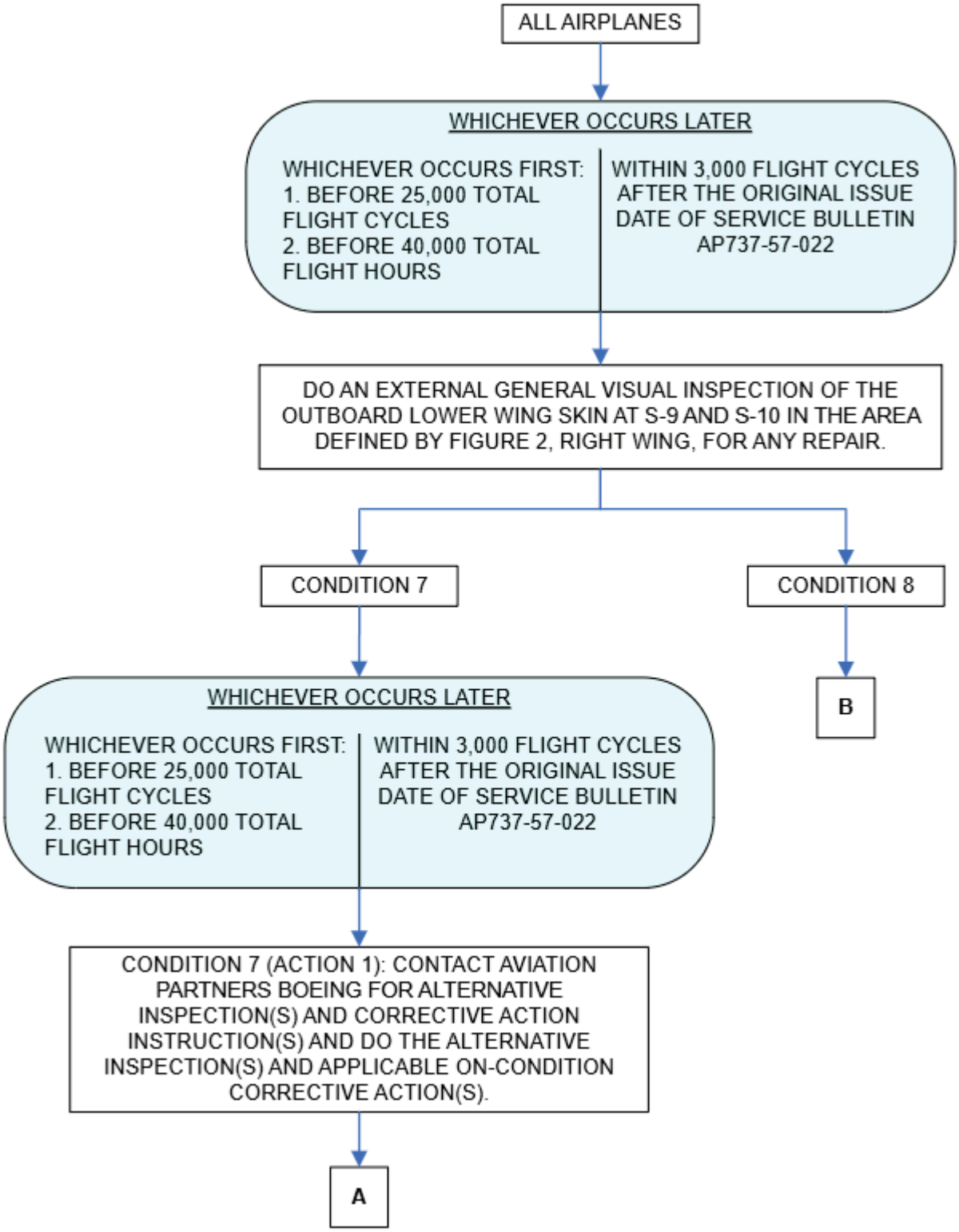
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 7	ANY REPAIR FOUND
CONDITION 7.1	NO CRACK FOUND
CONDITION 7.2	ANY CRACK FOUND
CONDITION 8	NO REPAIR FOUND
CONDITION 8.1	NO CRACK FOUND AT S-9
CONDITION 8.2	ANY CRACK FOUND AT S-9
CONDITION 8.2.1	REMOVABLE CRACKS FOUND AT S-9
CONDITION 8.2.2	NON-REMOVABLE CRACKS FOUND AT S-9
CONDITION 8.2.2.1	POST REPAIR CRACK FOUND AT S-9
CONDITION 8.3	NO CRACK FOUND AT S-10
CONDITION 8.4	ANY CRACK FOUND AT S-10

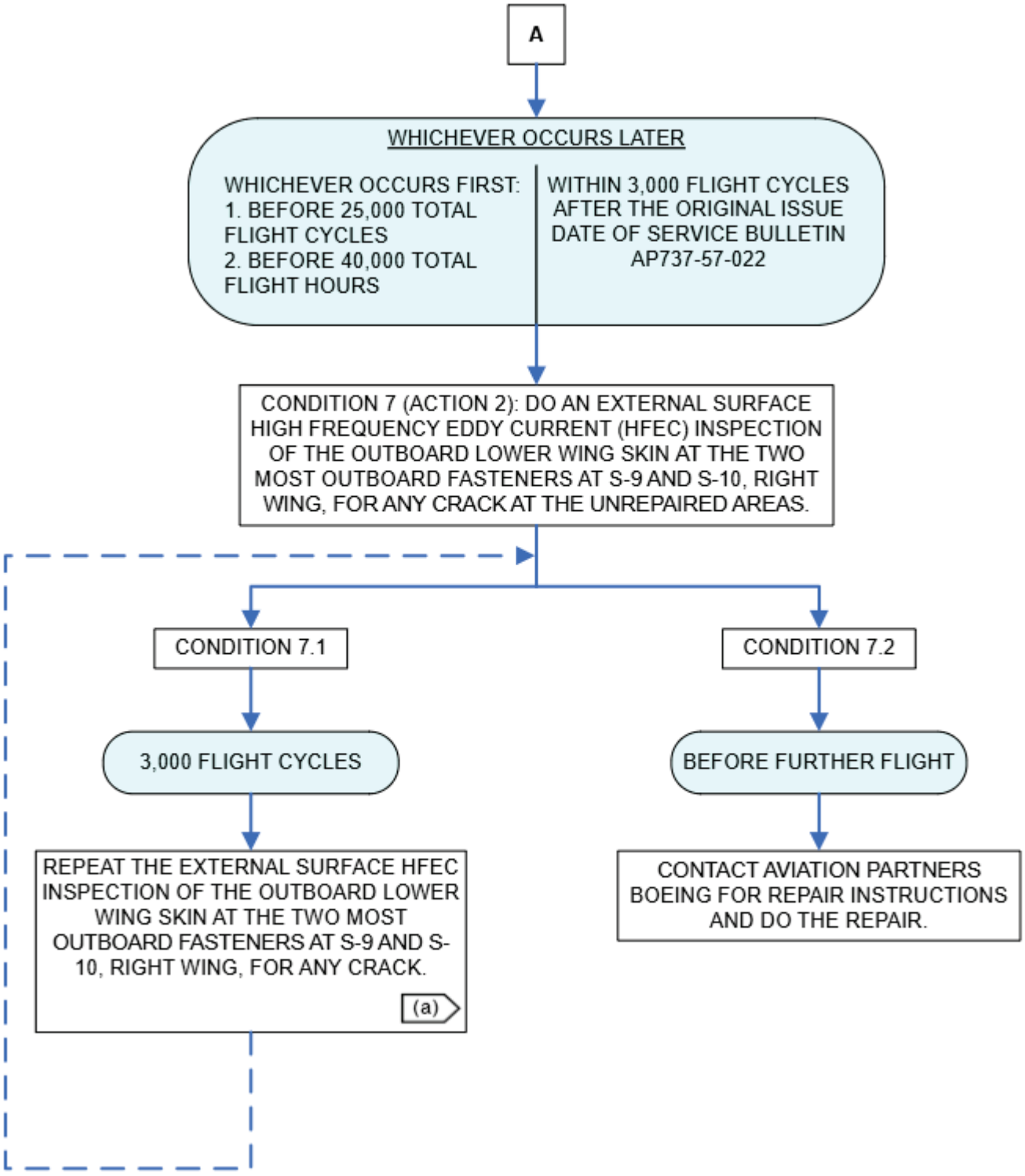
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

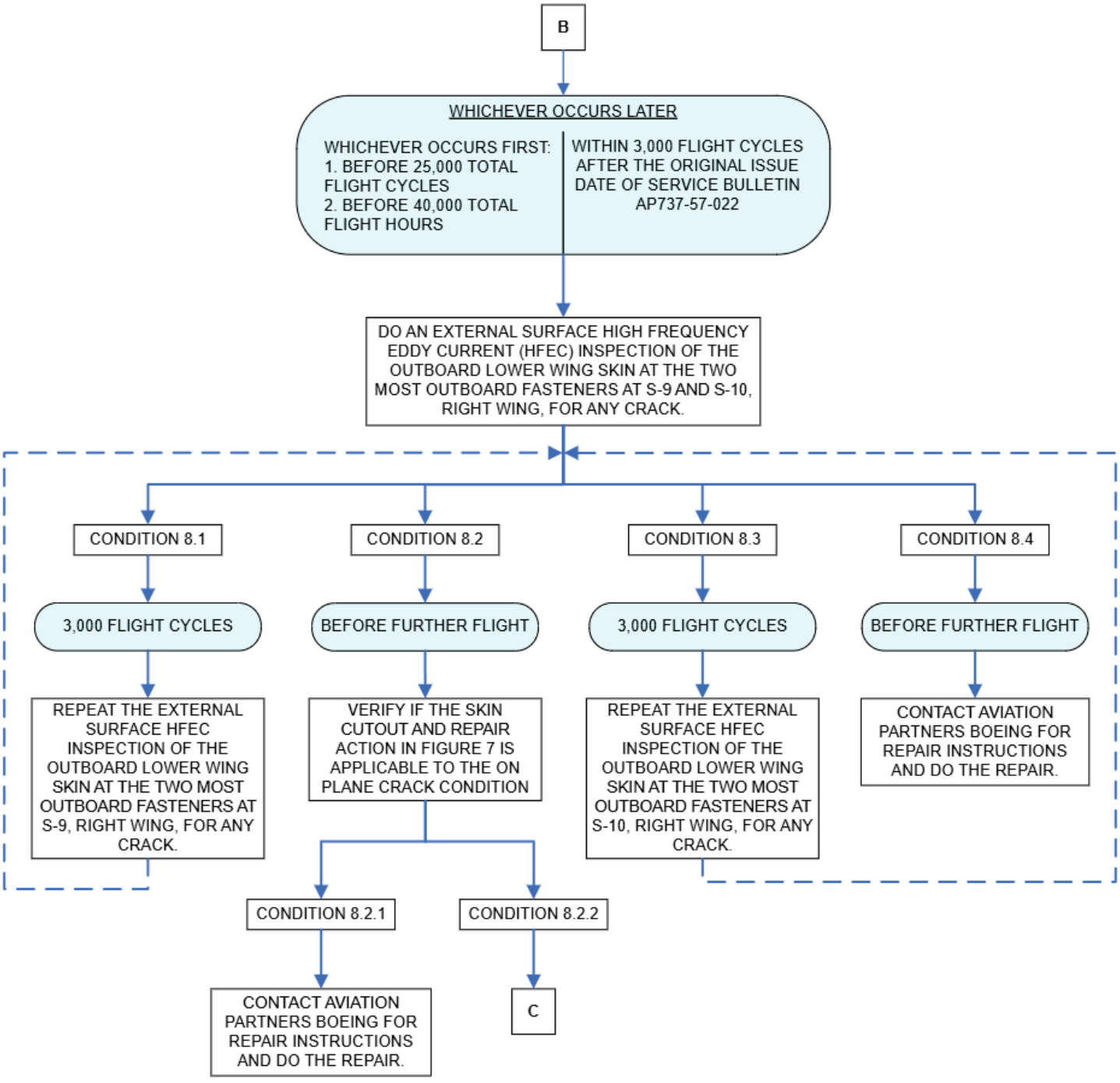
APPENDIX D: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 4: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10
(SHEET 1 OF 5)



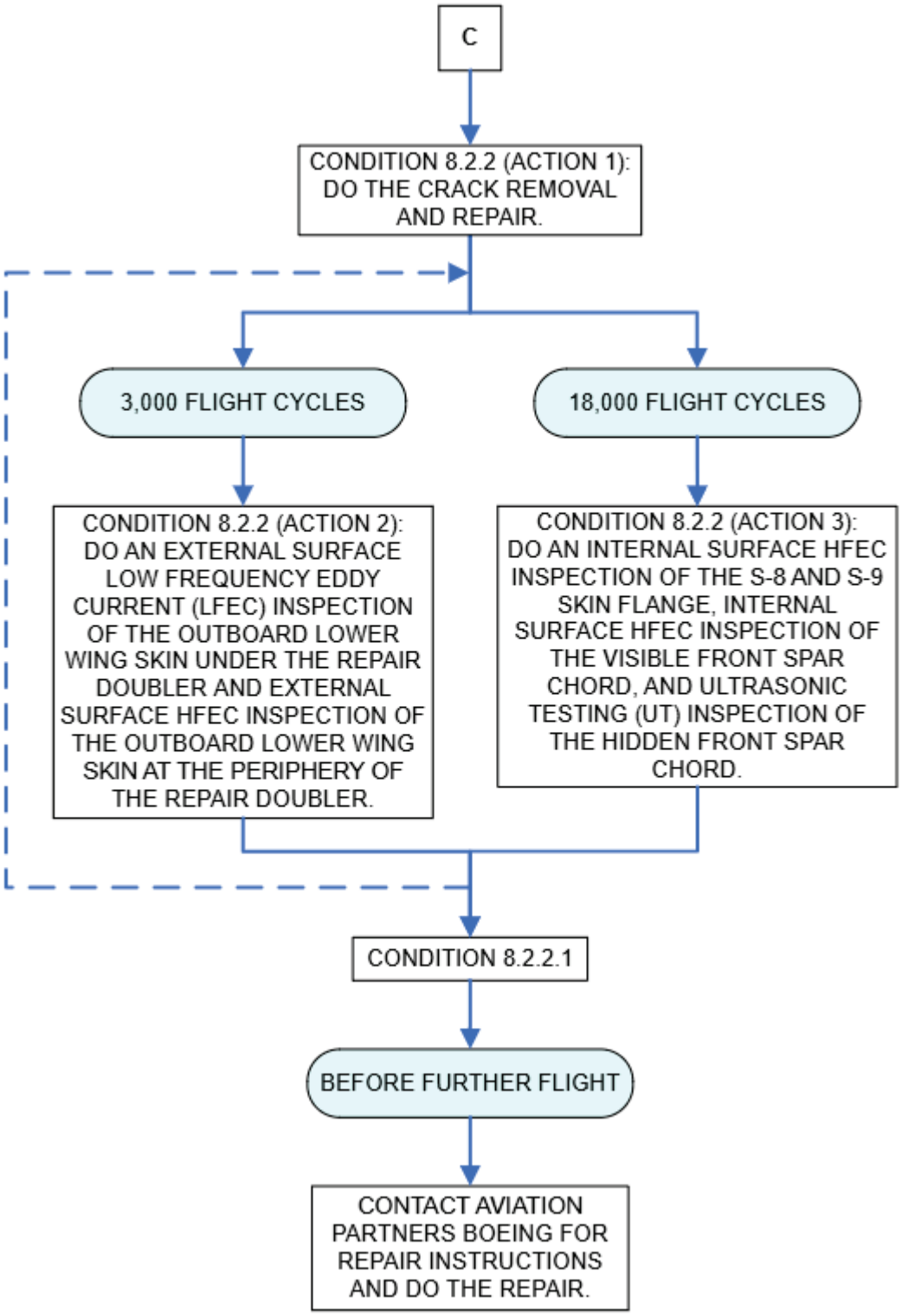
APPENDIX D: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 4: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 5)



APPENDIX D: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 4: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 5)



APPENDIX D: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 4: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 5)



APPENDIX D: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 4: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 5 OF 5)

This Appendix applies only to: Group 3.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

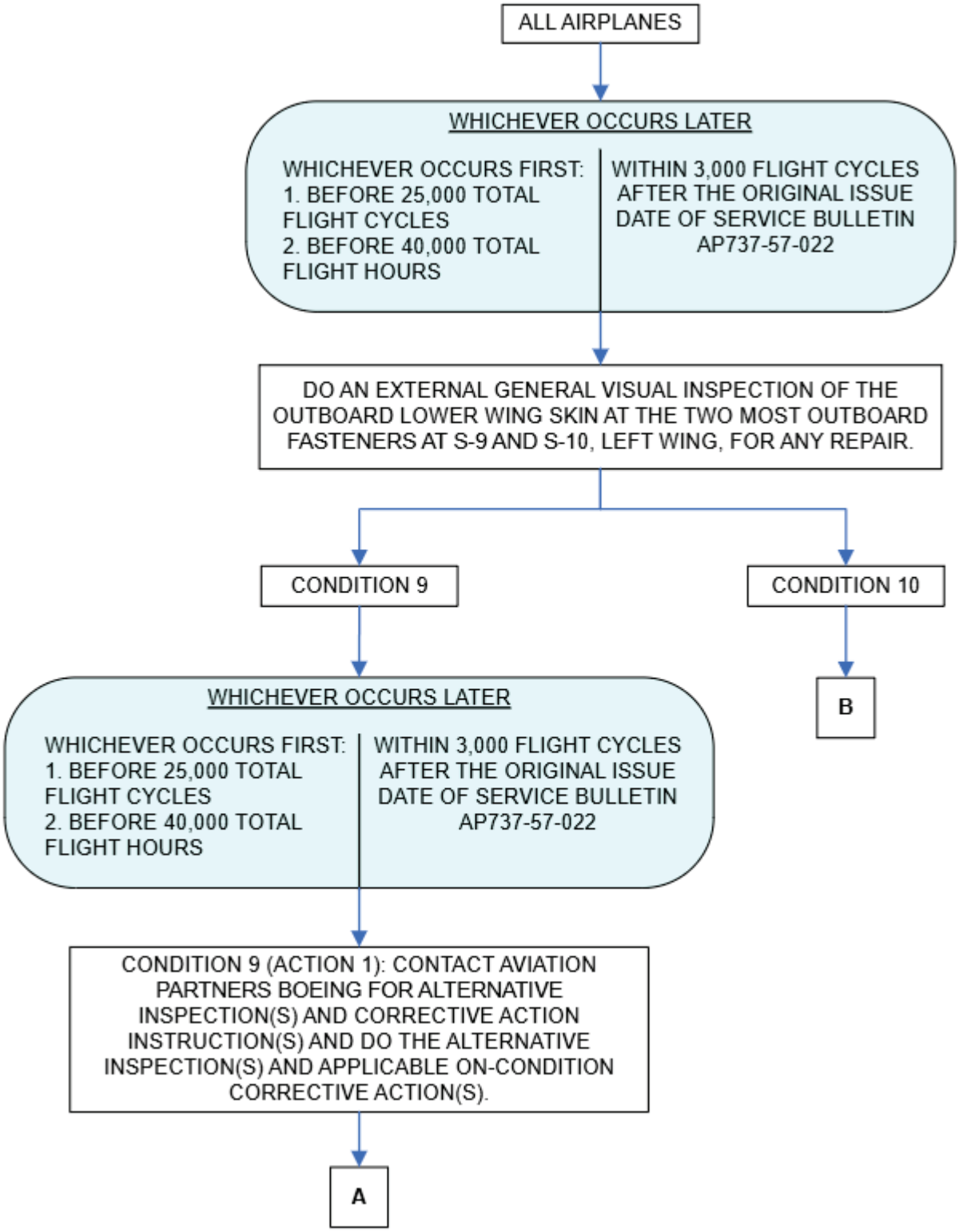
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 9	ANY REPAIR FOUND
CONDITION 9.1	NO CRACK FOUND
CONDITION 9.2	ANY CRACK FOUND
CONDITION 10	NO REPAIR FOUND
CONDITION 10.1	NO CRACK FOUND
CONDITION 10.2	ANY CRACK FOUND

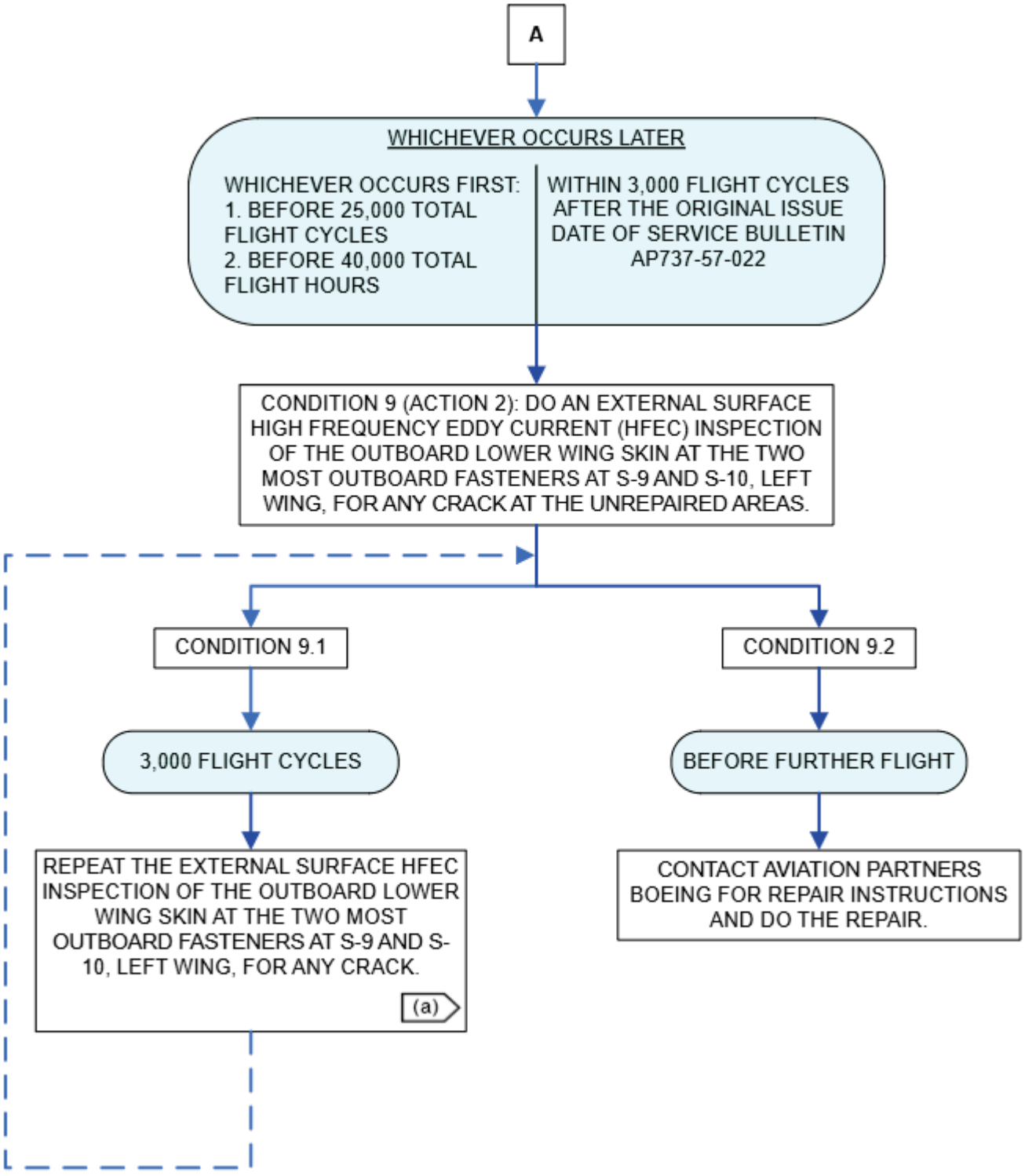
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

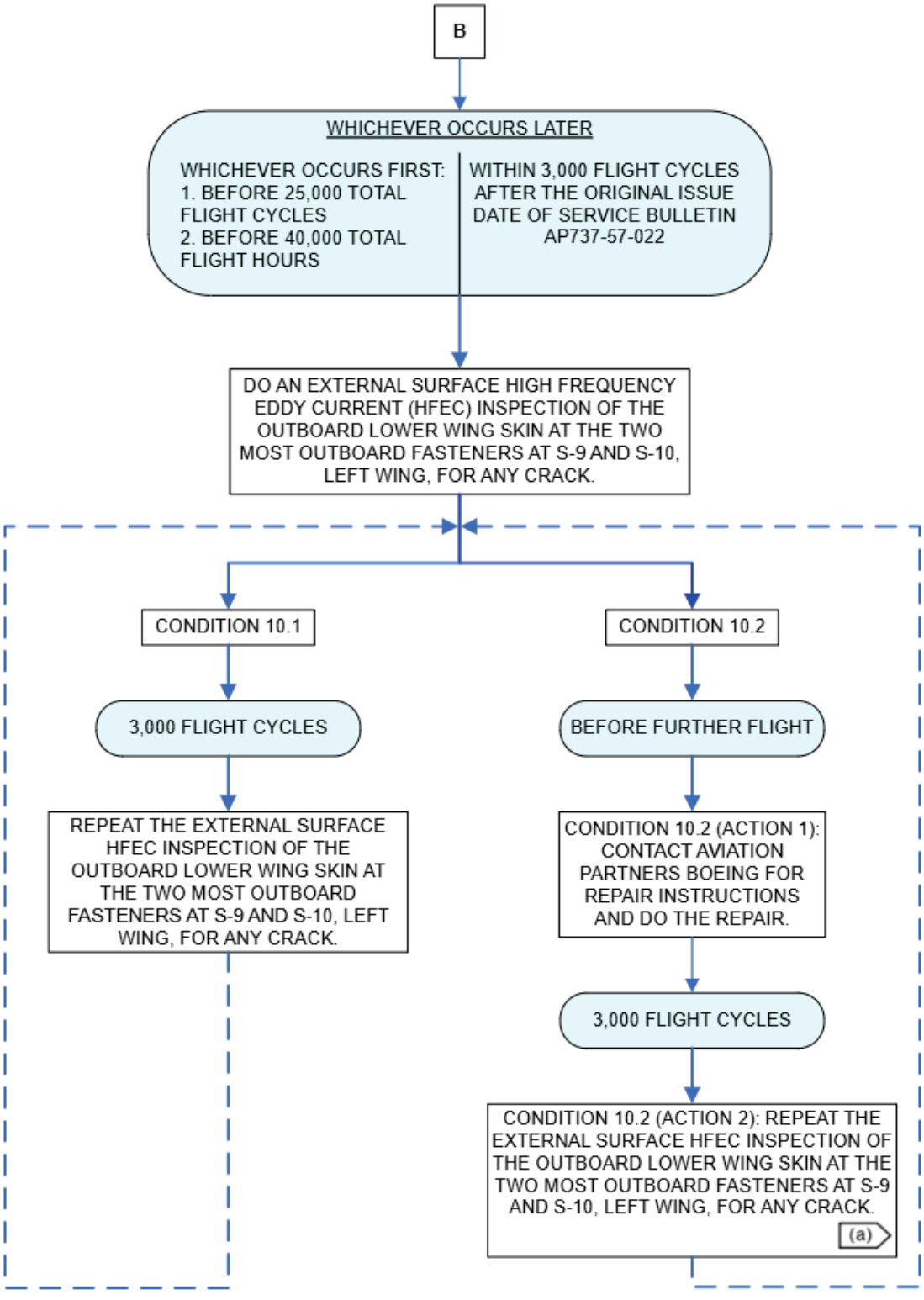
APPENDIX E: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 5: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 4)



APPENDIX E: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 5: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 4)



APPENDIX E: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 5: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 4)



APPENDIX E: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 5: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 4)

This Appendix applies only to: Group 3.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

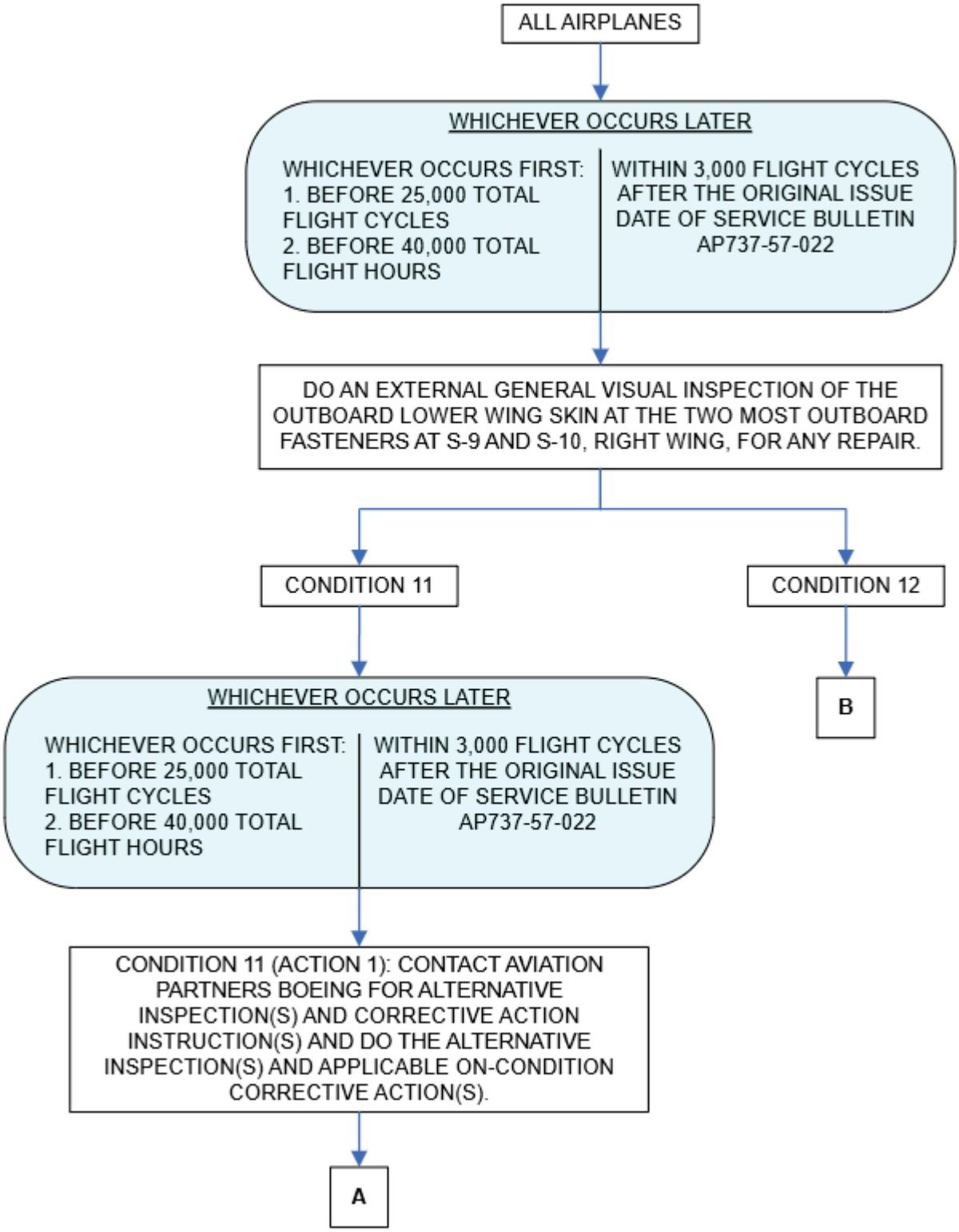
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 11	ANY REPAIR FOUND
CONDITION 11.1	NO CRACK FOUND
CONDITION 11.2	ANY CRACK FOUND
CONDITION 12	NO REPAIR FOUND
CONDITION 12.1	NO CRACK FOUND
CONDITION 12.2	ANY CRACK FOUND

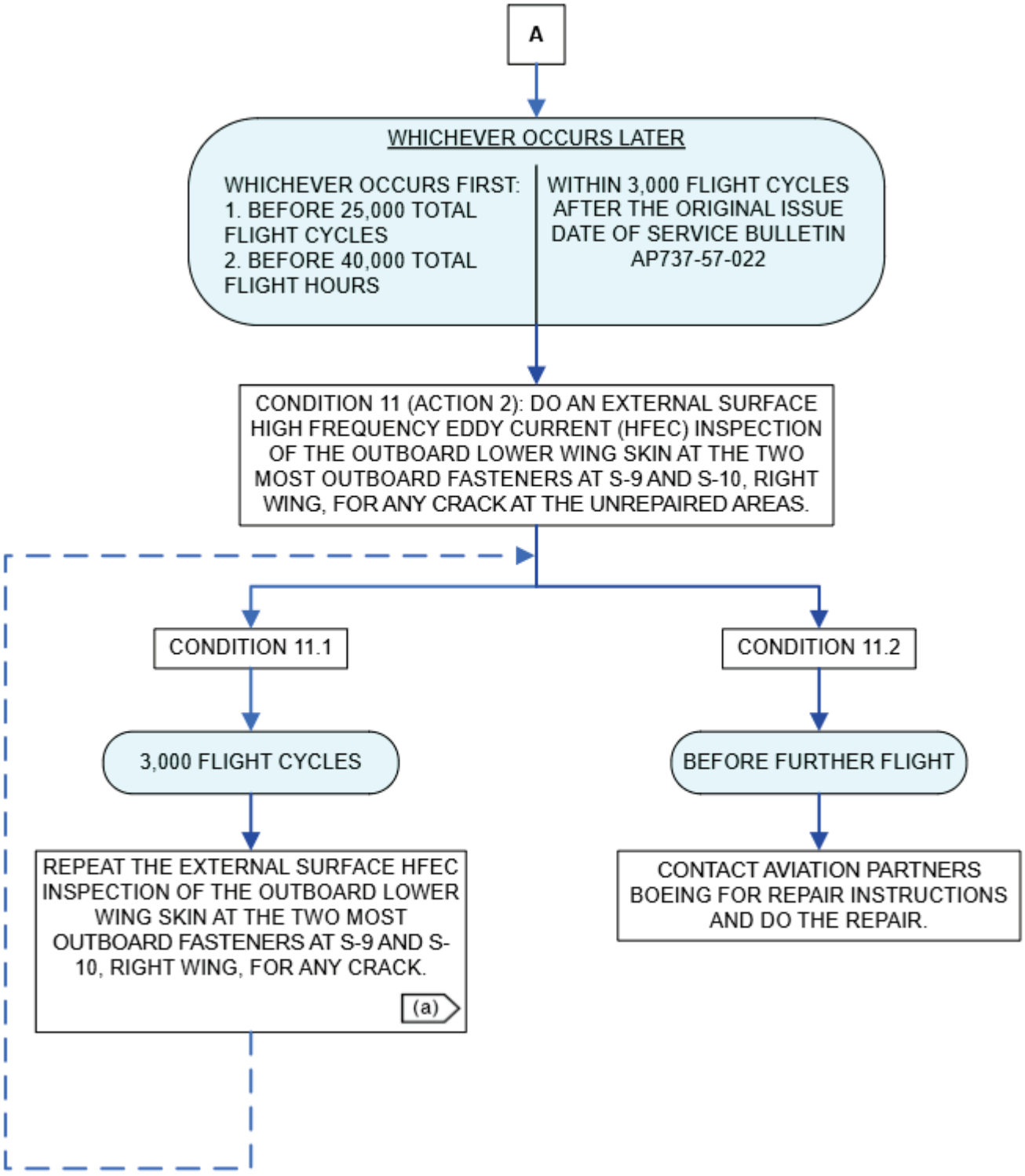
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Split Scimitar Winglet provisioned configuration via a FAA Form 8110-3.

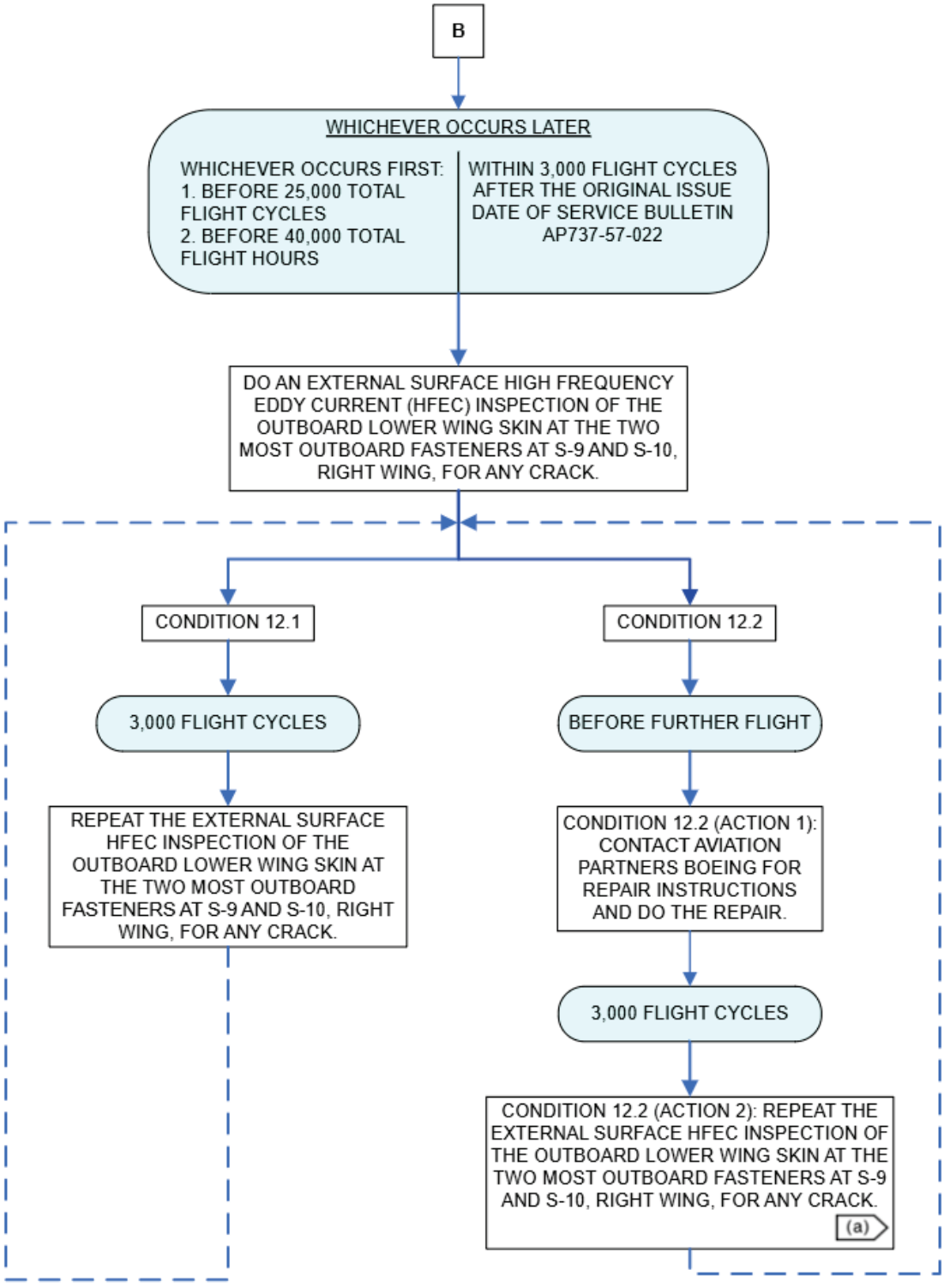
APPENDIX F: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 6: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 4)



APPENDIX F: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 6: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 4)



APPENDIX F: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 6: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 4)



APPENDIX F: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 6: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 4)

This Appendix applies only to: Group 4.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

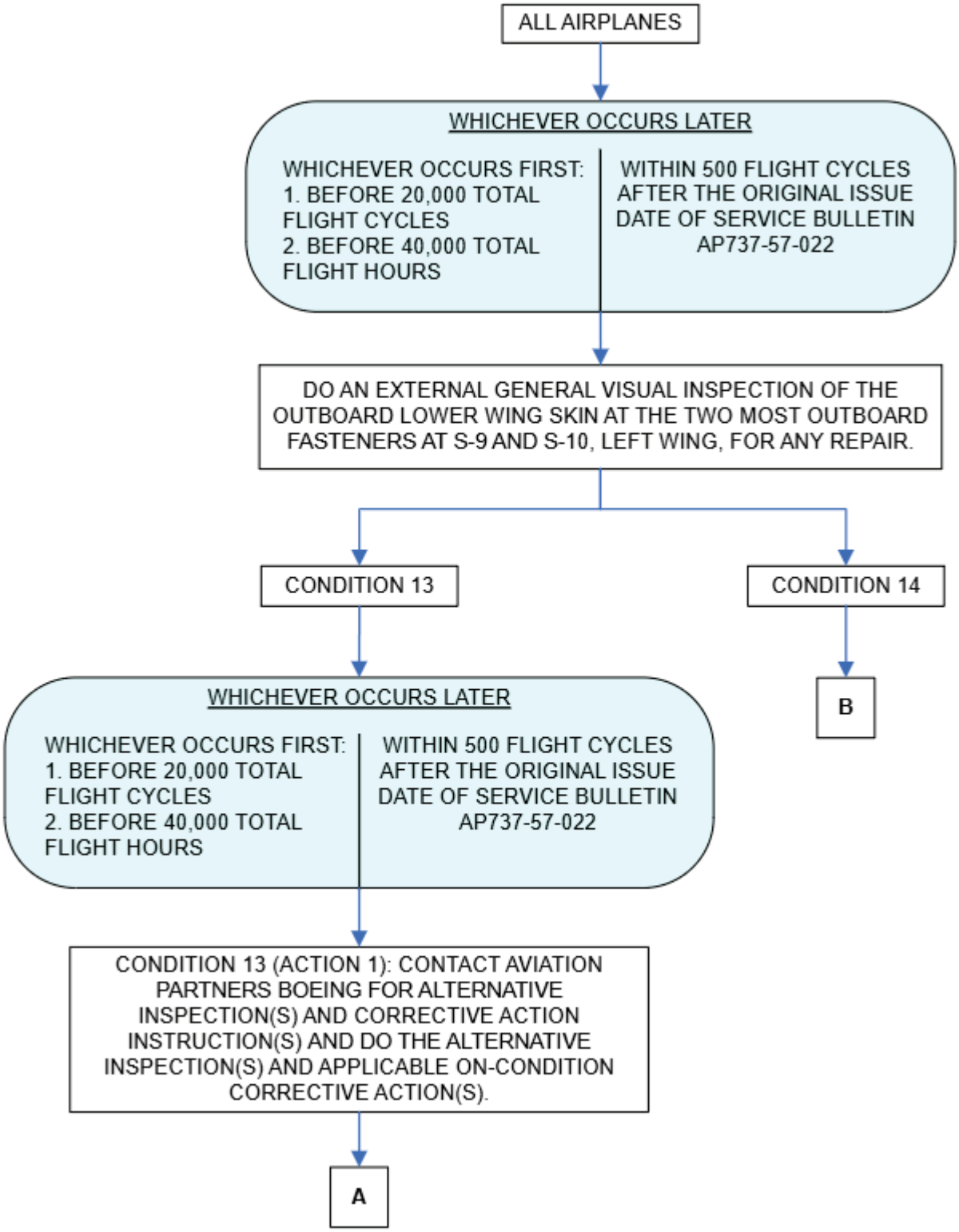
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 13	ANY REPAIR FOUND
CONDITION 13.1	NO CRACK FOUND
CONDITION 13.2	ANY CRACK FOUND
CONDITION 14	NO REPAIR FOUND
CONDITION 14.1	NO CRACK FOUND
CONDITION 14.2	ANY CRACK FOUND

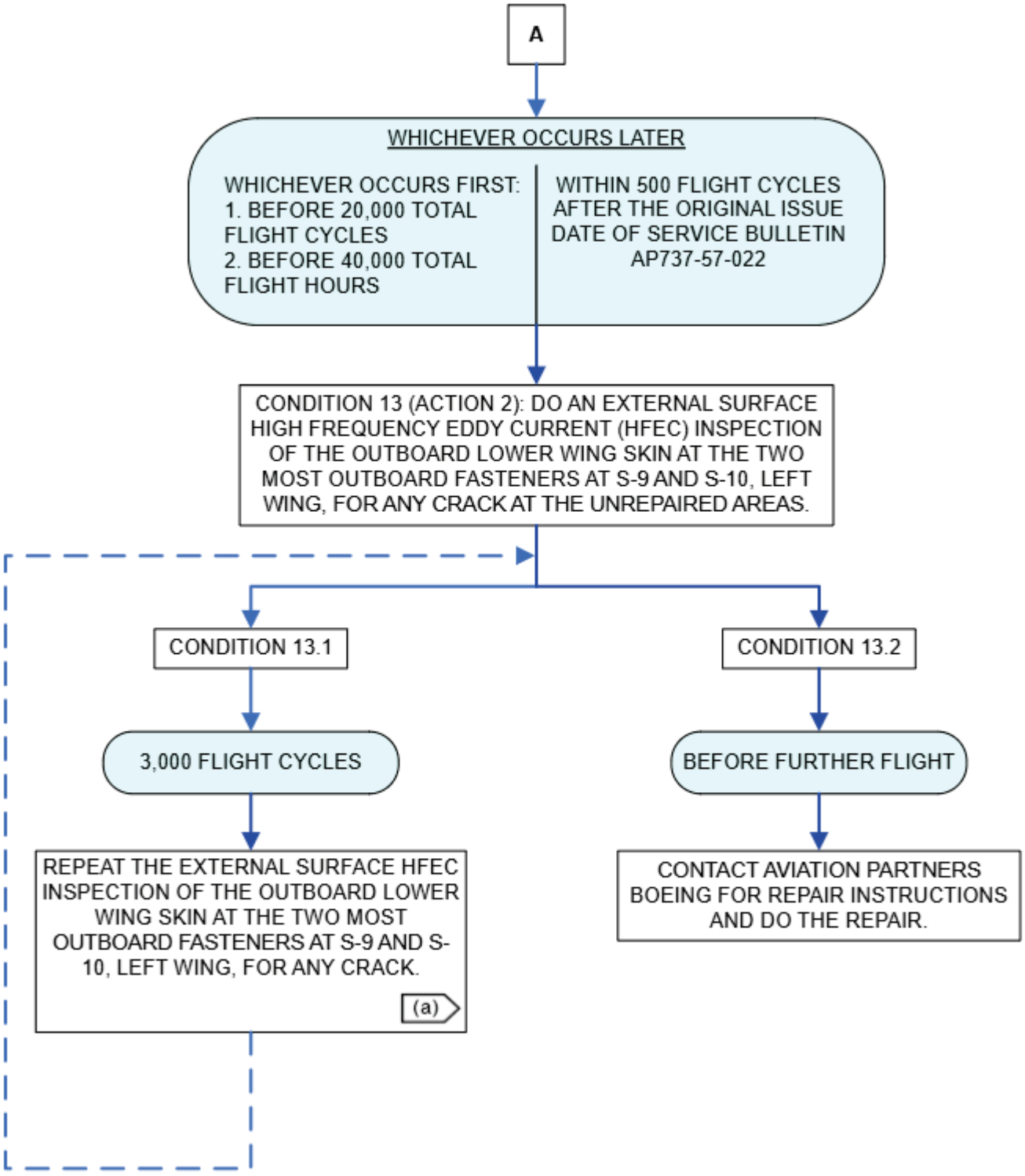
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

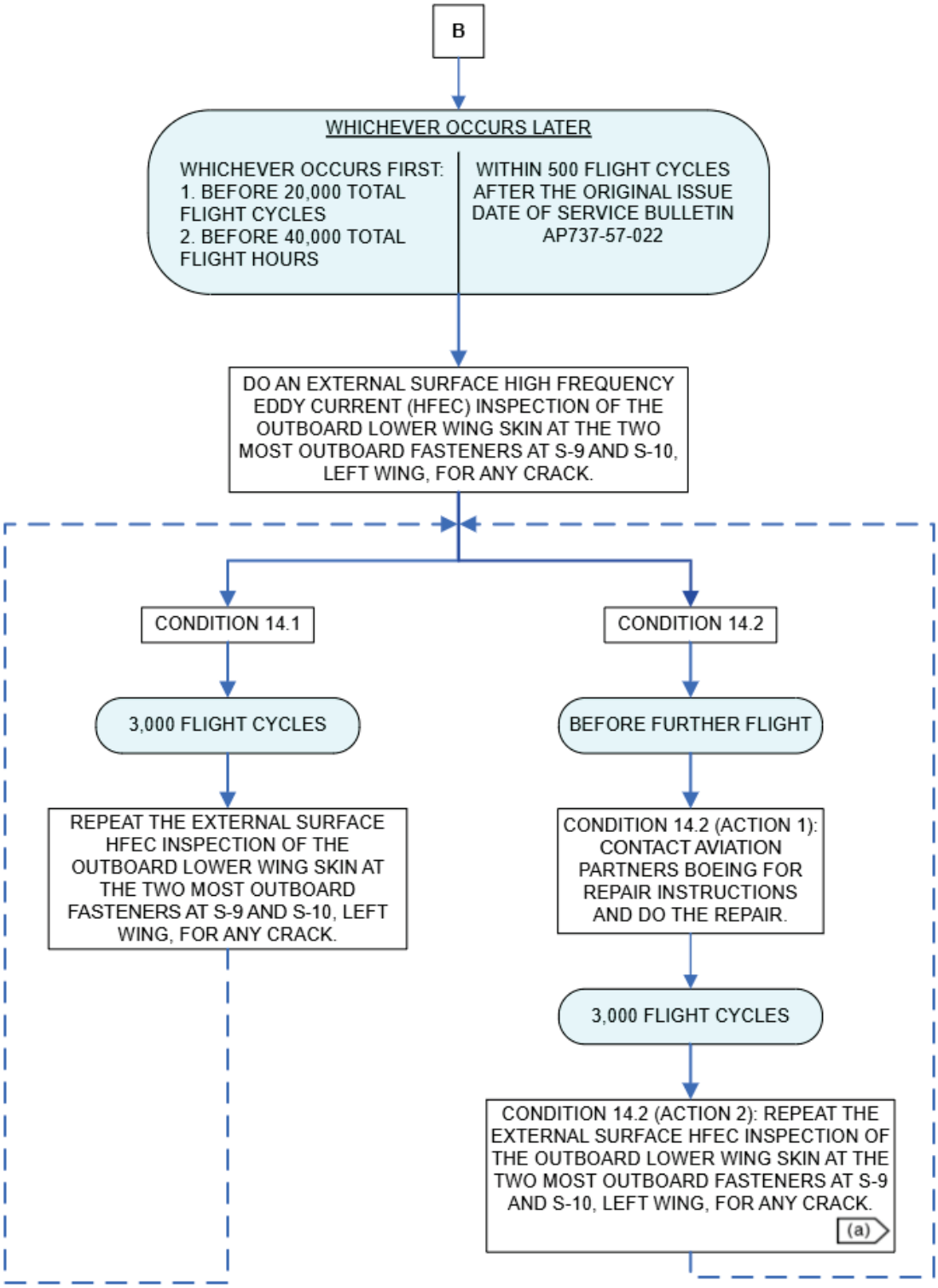
APPENDIX G: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 7: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 4)



APPENDIX G: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 7: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 4)



APPENDIX G: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 7: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 4)



APPENDIX G: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 7: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 4)

This Appendix applies only to: Group 4.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

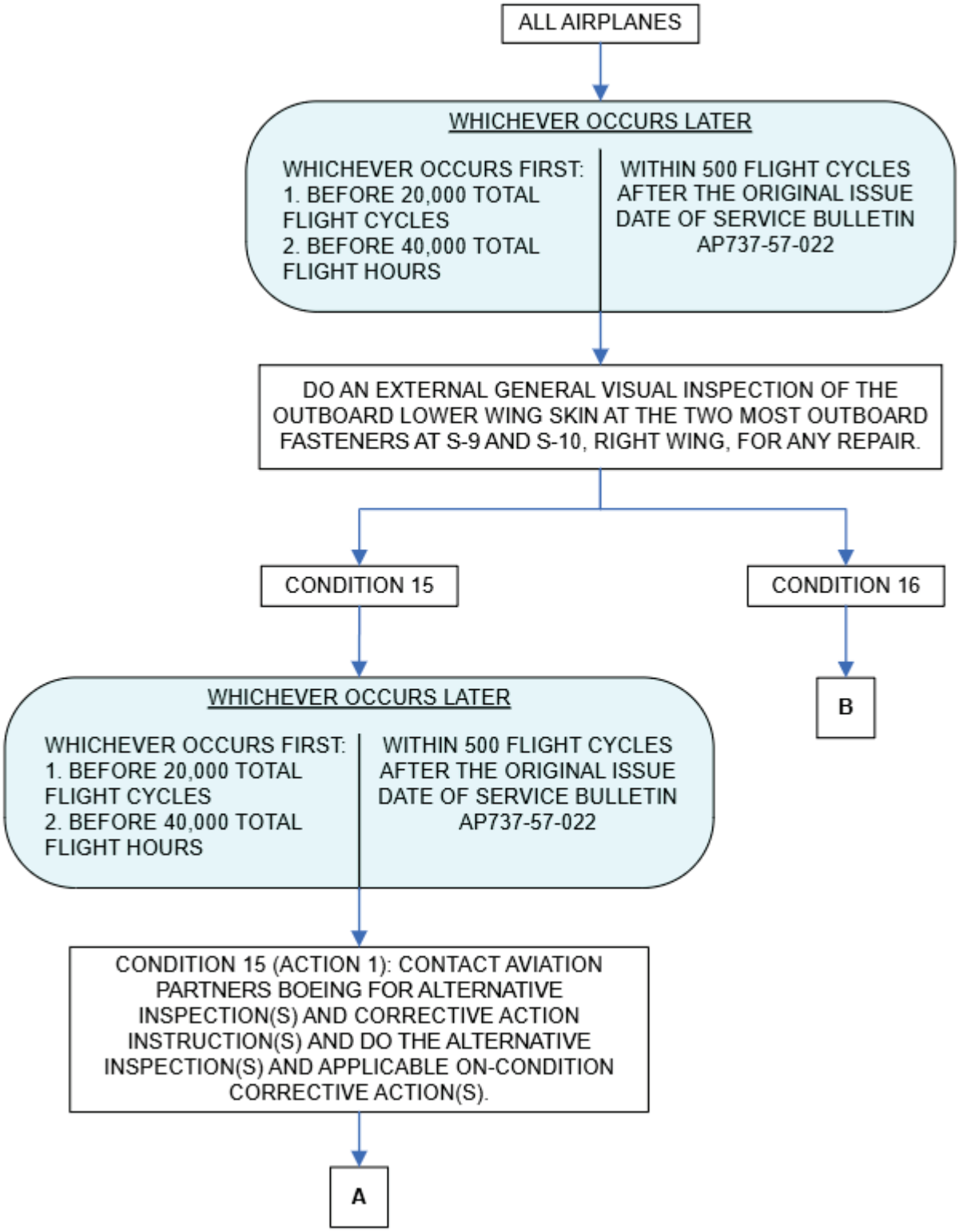
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 15	ANY REPAIR FOUND
CONDITION 15.1	NO CRACK FOUND
CONDITION 15.2	ANY CRACK FOUND
CONDITION 16	NO REPAIR FOUND
CONDITION 16.1	NO CRACK FOUND
CONDITION 16.2	ANY CRACK FOUND

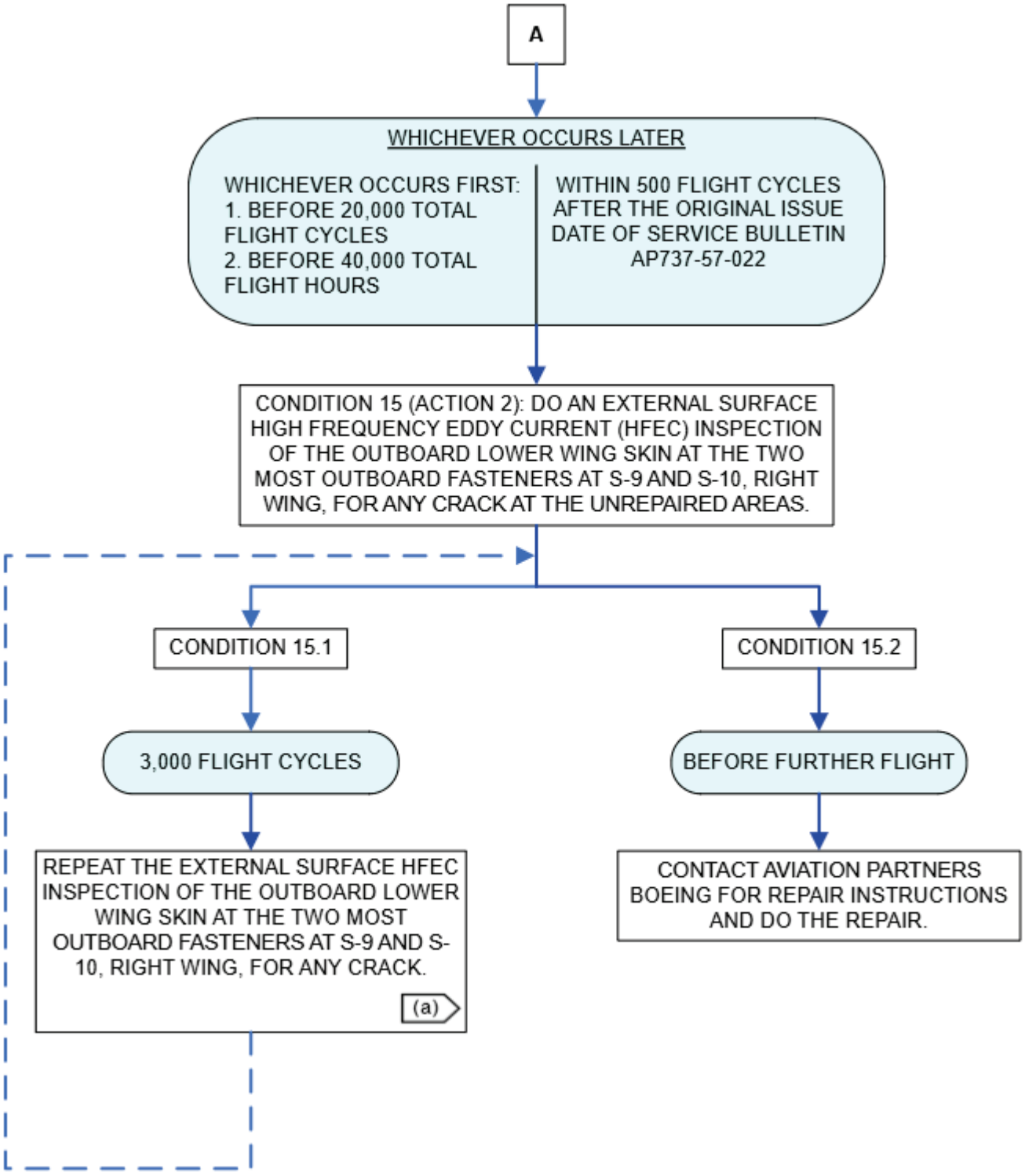
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

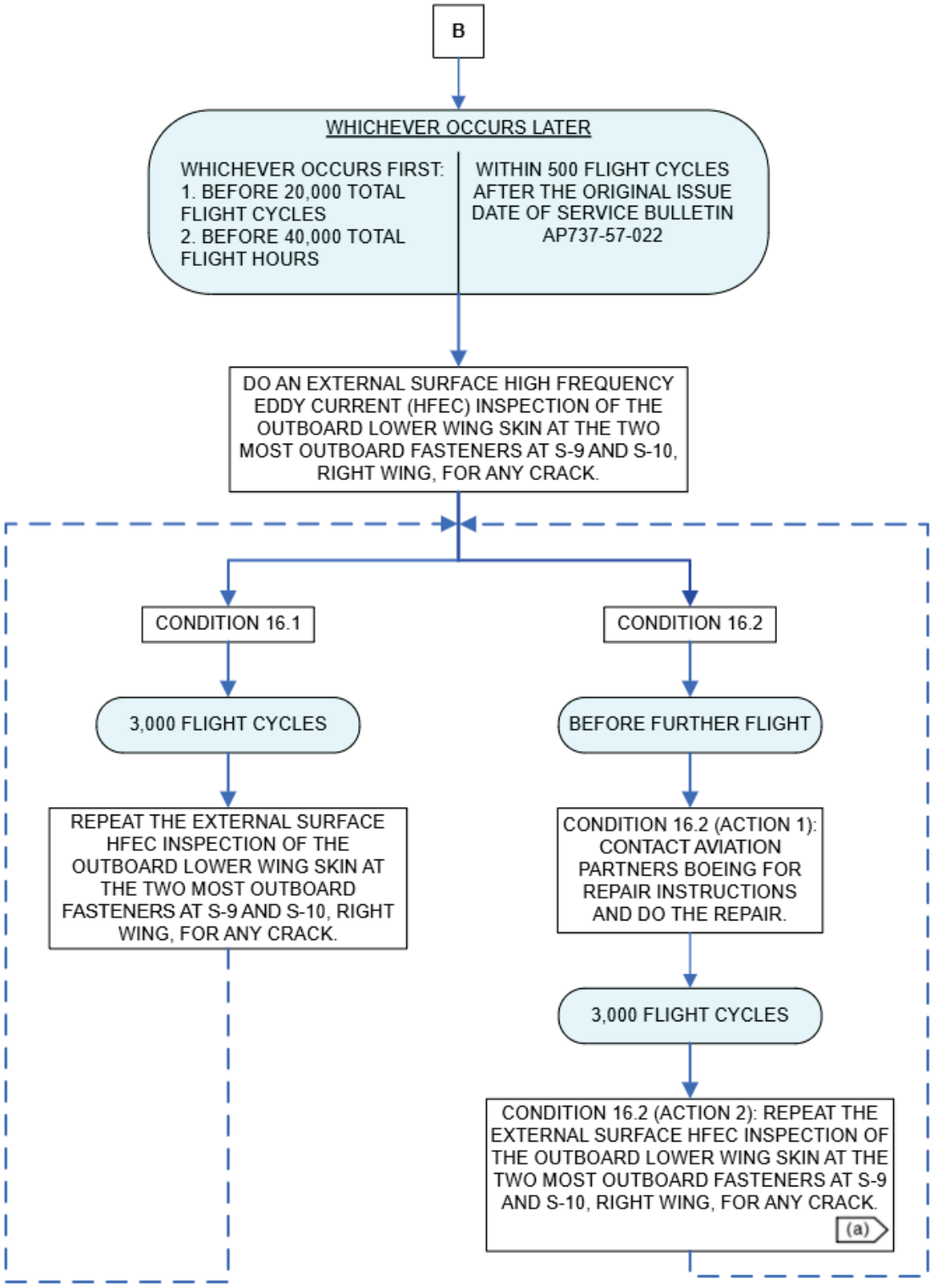
APPENDIX H: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 8: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 4)



APPENDIX H: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 8: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 4)



APPENDIX H: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 8: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 4)



APPENDIX H: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 8: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 4)

This Appendix applies only to: Group 5.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

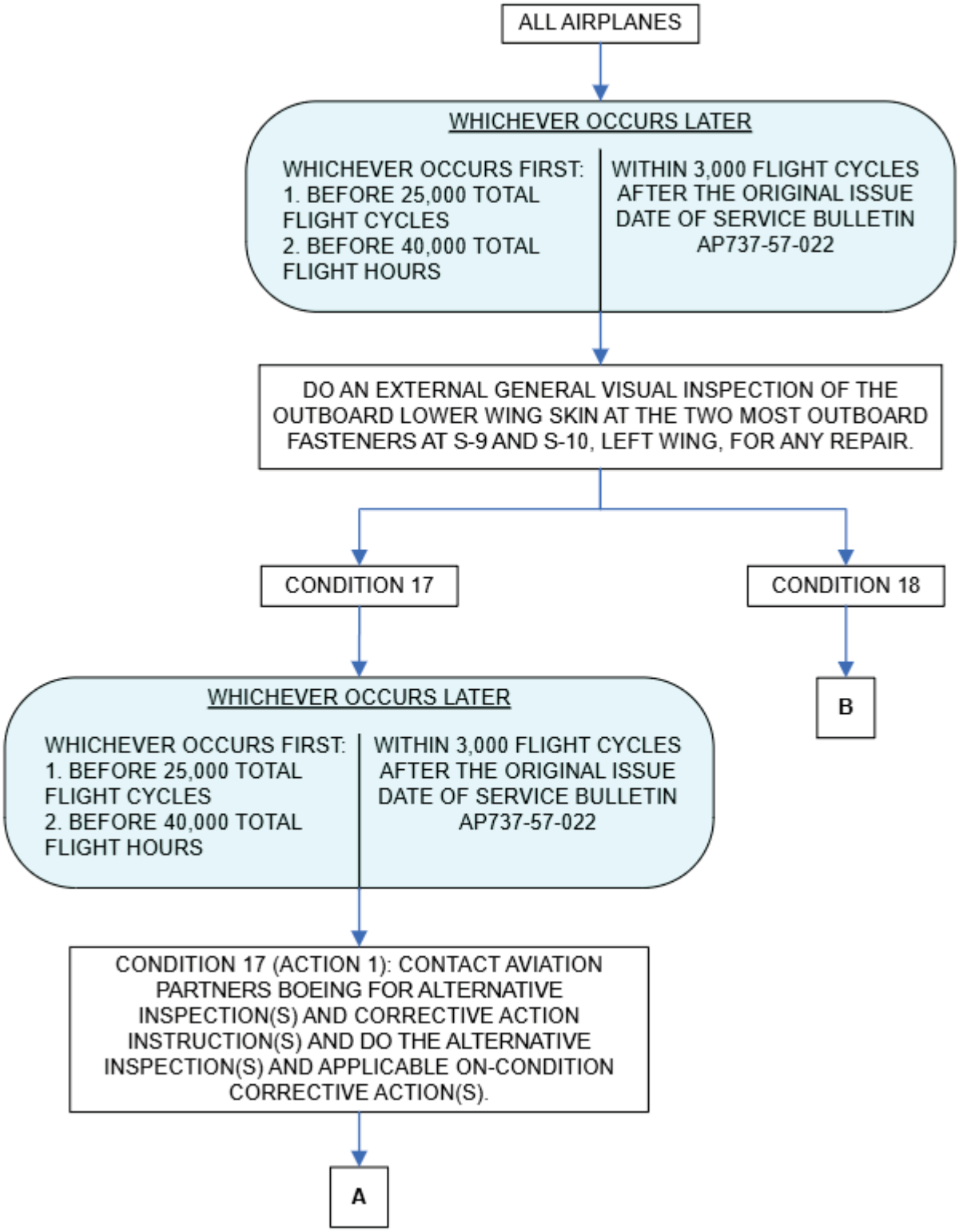
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 17	ANY REPAIR FOUND
CONDITION 17.1	NO CRACK FOUND
CONDITION 17.2	ANY CRACK FOUND
CONDITION 18	NO REPAIR FOUND
CONDITION 18.1	NO CRACK FOUND
CONDITION 18.2	ANY CRACK FOUND

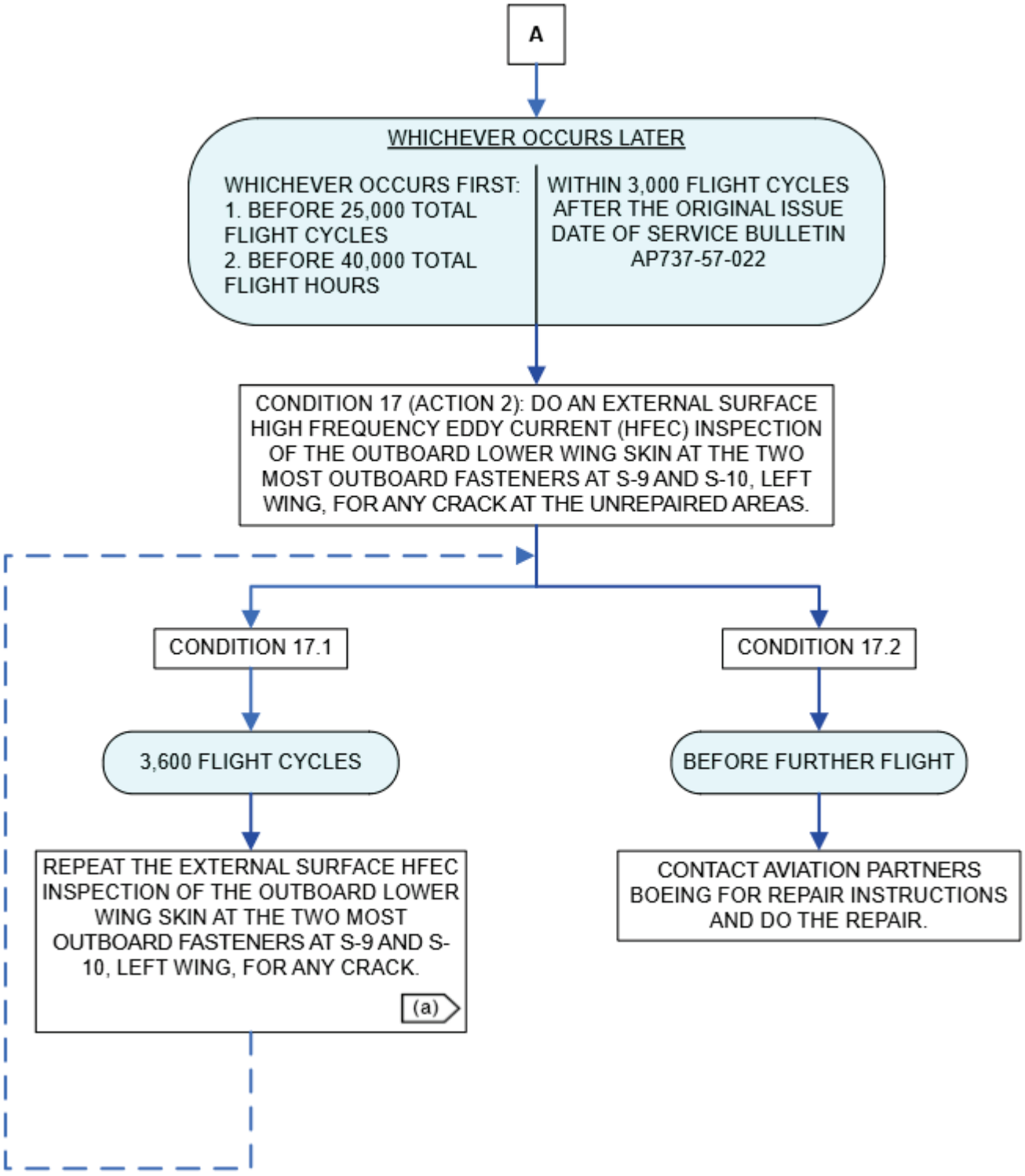
2. The table below gives the description for the flag notes called out in the logic diagram.

Flag Note Letter	Description
(a)	It is not required to do the external surface HFEC inspection in areas where a repair covers the affected inspection zone if the repair meets the conditions that follow: 1. The repair is the corrective action to the outboard lower wing skin crack condition identified in Service Bulletin AP737-57-022 and installed after the Original Issue date of Service Bulletin AP737-57-022 AND 2. The installed repair was approved by a FAA DER for the Blended Winglet provisioned configuration via a FAA Form 8110-3.

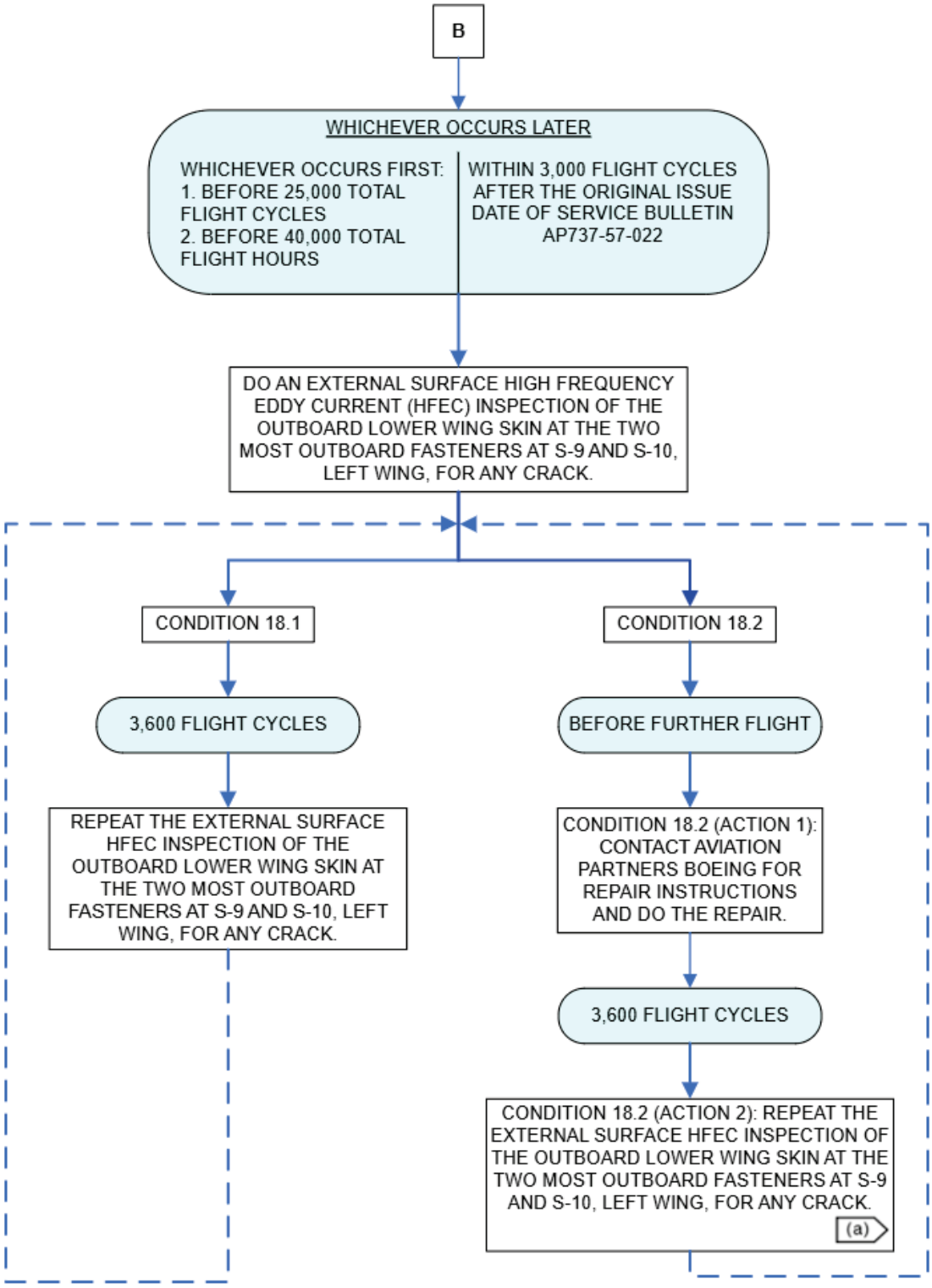
APPENDIX I: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 9: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 4)



APPENDIX I: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 9: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 4)



APPENDIX I: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 9: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 4)



APPENDIX I: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 9: INSPECTION OF THE OUTBOARD LOWER WING SKIN LEFT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 4)

This Appendix applies only to: Group 5.

Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E, Compliance, of this Service Bulletin is the primary source for compliance times. Information contained in Paragraph 3.B., Work Instructions, of this Service Bulletin is the primary source for tasks required for compliance.

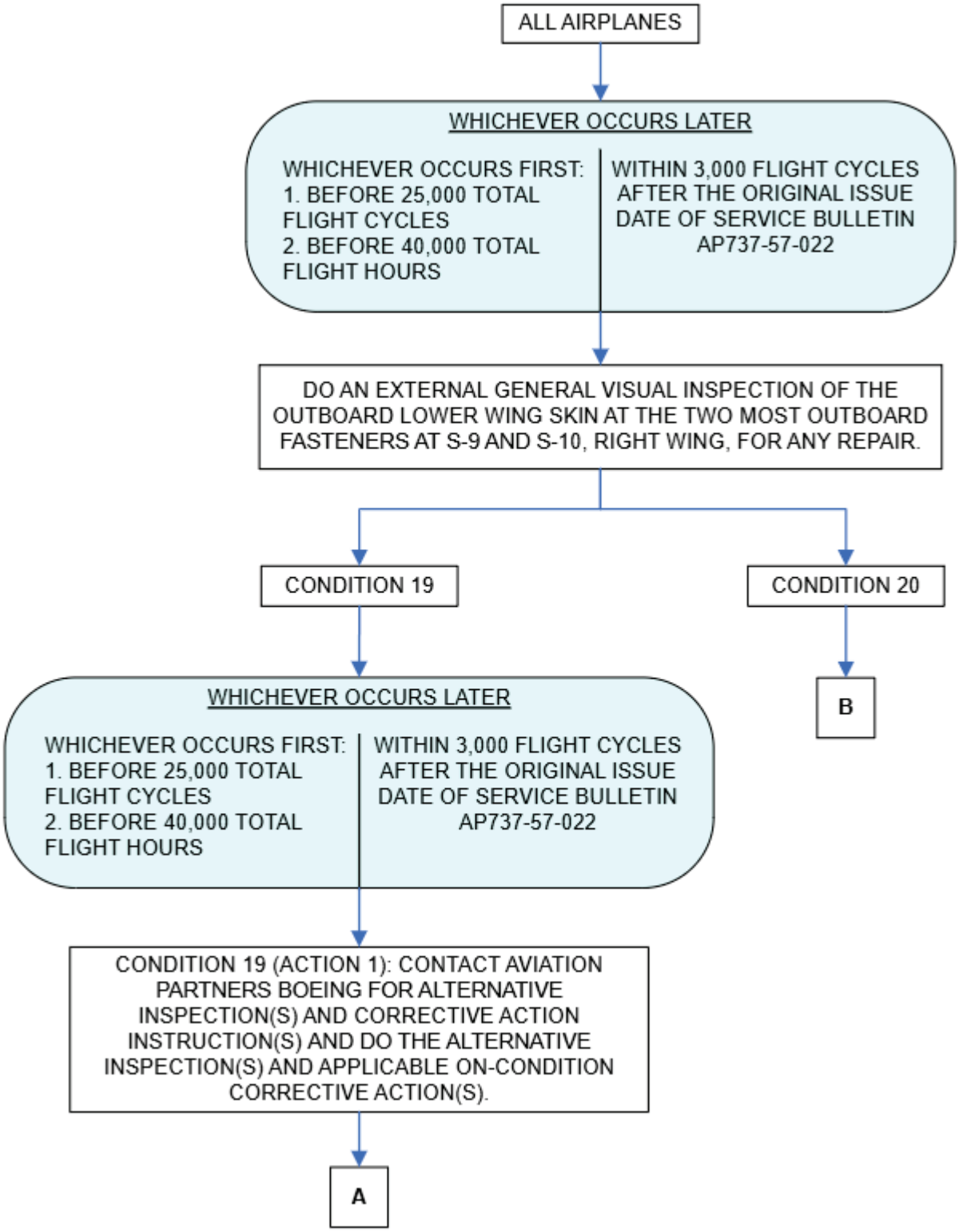
1. The table below gives the description for the parts and conditions called out in the logic diagrams.

Title	Description
CONDITION 19	ANY REPAIR FOUND
CONDITION 19.1	NO CRACK FOUND
CONDITION 19.2	ANY CRACK FOUND
CONDITION 20	NO REPAIR FOUND
CONDITION 20.1	NO CRACK FOUND
CONDITION 20.2	ANY CRACK FOUND

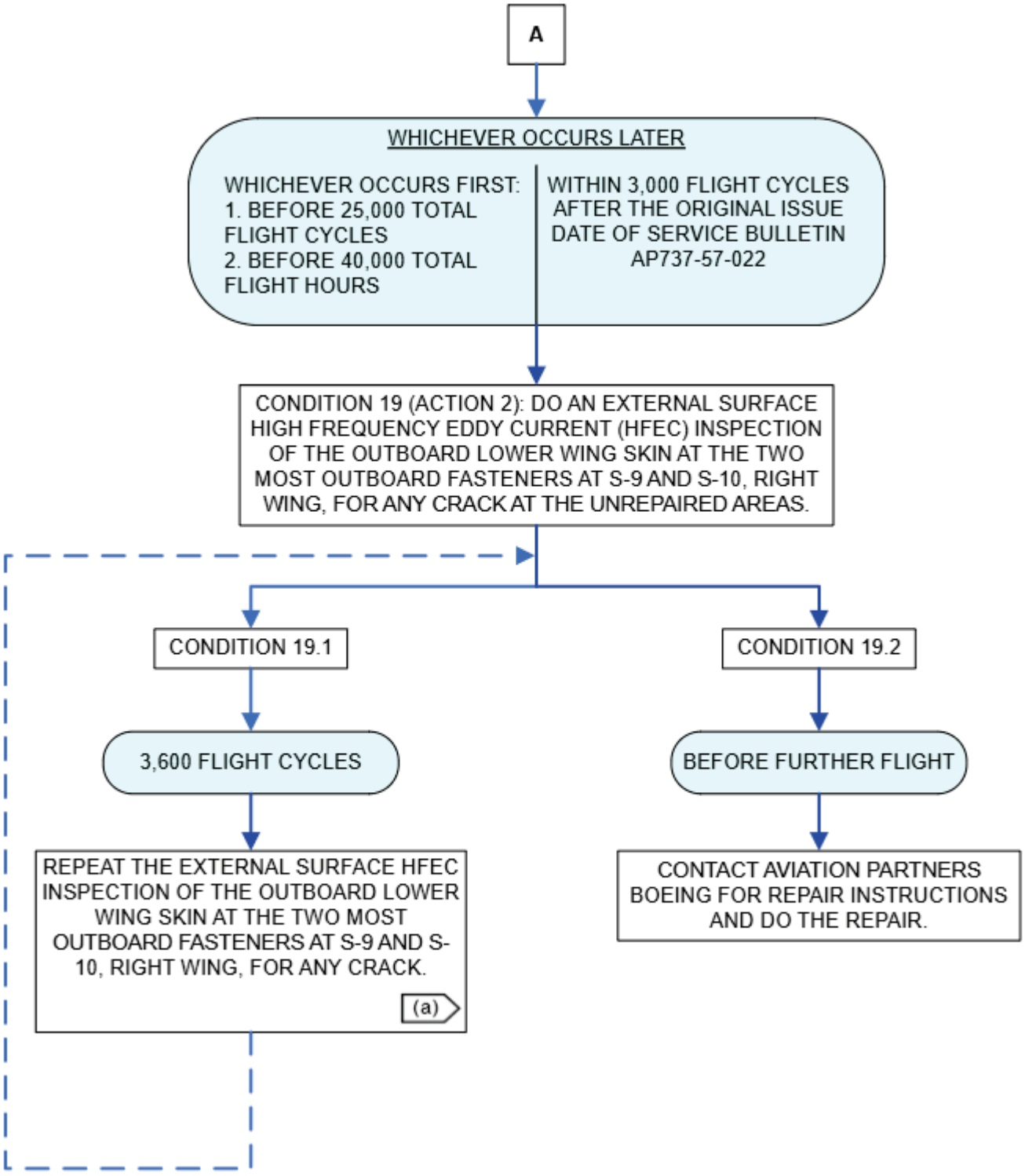
2. The table below gives the description for the flag notes called out in the logic diagram.

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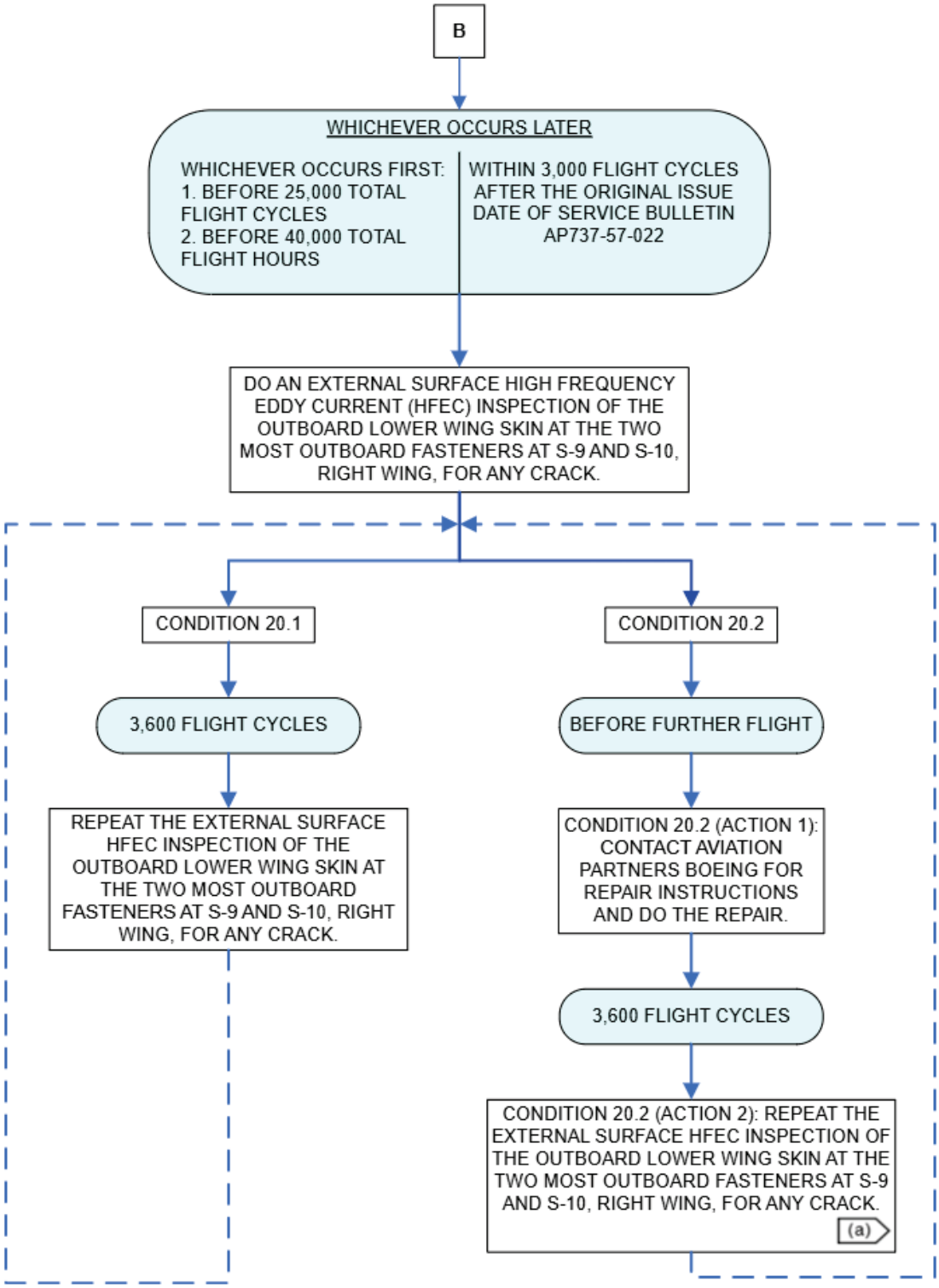
APPENDIX J: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 10: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 1 OF 4)



APPENDIX J: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 10: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 2 OF 4)



APPENDIX J: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 10: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 3 OF 4)



APPENDIX J: LOGIC DIAGRAM FOR PARAGRAPH 1.E., COMPLIANCE TABLE 10: INSPECTION OF THE OUTBOARD LOWER WING SKIN RIGHT WING AT STRINGERS S-9 AND S-10 (SHEET 4 OF 4)

Apply a localized force within the following limit, to fit the part to its checking device, or to fit the part to mating structure.

1. 2 pounds for metal thickness less than 0.045 inch.
2. 5 pounds for metal thickness of 0.045 inch and greater.
3. Force must be applied at 12 inch intervals or at equivalent smaller intervals (e.g., 1/2 the specified weight on a 6 inch interval or 1/4 the specified weight on 3 inch intervals).
4. Any number of 2 or 5 pound force units may be applied if the intervals noted above are maintained.

OPTION: A vacuum table may be used in lieu of localized force. Vacuum tables shall maintain a uniform pressure of 0.014 psi for metal thickness less than 0.045 inch or 0.035 psi for metal thickness of 0.045 inch and greater. Higher initial pressures may be used to establish contact between the parts and the table.

APPENDIX K: PART FITUP FORCES
(SHEET 1 OF 1)