A Textron Company

ALERT SERVICE BULLETIN 407-20-121

15 January 2021

MODEL AFFECTED: **407**

SUBJECT: **SIDE BODY FAIRING FASTENERS, DETAILED VISUAL INSPECTION OF.**

HELICOPTERS AFFECTED: **Refer to Table 1.**

[Serial numbers not listed in Table 1 are not affected by this bulletin.]

COMPLIANCE: **PART I** Within 60 days following the release date of this bulletin.

PART II Within the next 300 flight hours or 12 months, whichever comes first, following the release date of this bulletin, and every 300 flight hours or 12 months thereafter or when Conditional Inspection for Hard Landing (DMC-407-A-05-50-00-01A-284A-A) is required to be performed

DESCRIPTION:

Bell has been made aware of a potential condition where the fastener holes in the left and right side body fairing (SBF) and airframe structure may have been elongated during the manufacturing process.

PART I of this bulletin provides instructions for a detailed visual inspection (DVI) of the left and right SBF fasteners. Areas of concern are at the aft fuselage to cabin splice at FS 155 and fasteners at the lower shell joint at FS 121.4 due to the high loads being carried through these areas.

PART II of this bulletin provides instructions for a DVI and general visual inspection (GVI) of fasteners of the left and right side body fairings in areas of concern and introduces a recurring inspection requirement. For information on damage and repair procedures not contained in this bulletin, please contact Product Support Engineering.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

MANPOWER:

Approximately 0.5 man-hours is required to complete **PART I** of this bulletin. Approximately 1.5 man-hours are required to complete **PART II** of this bulletin.
This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty coverage applicable for this Bulletin.

MATERIAL:

Required Material:

None required.

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Supply Center.

Part Number	Nomenclature	Qty (Note)	Reference *
2100-00006-00	Cleaning Compound	5 GAL (1)	C-318

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTE 1: Quantity indicated is the format that the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not Affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-ALL-SPM, Standard Practices Manual, Chapter 13
407-MM, Maintenance Manual, Chapter 25
CSSD-PSE-87-001, Corrosion Control Guide

PUBLICATIONS AFFECTED:

407-MPI, Maintenance Planning Information, Chapter 5
407-MM, Maintenance Manual, Chapter 53

ACCOMPLISHMENT INSTRUCTIONS:

PART I: Detailed visual inspection of fasteners at aft fuselage to cabin splice at FS 155 and fasteners at lower shell FS 121.4.

1. Prepare the helicopter for maintenance.

-NOTE-

All Bell helicopters receive corrosion protection such as paint, sealants, preservative compounds, plating, and other finishes to help prevent environmental deterioration. The Corrosion Control Guide CSSD-PSE-87-001 provides guidance to owners/operators and serves them to develop their own corrosion control program for continued economical and safe operation of their helicopters. The CSSD manual sets the minimal inspection requirements for corrosion not to exceed 100 flight hours or 90 days, whichever occurs first. Helicopters, while operating in hot and dry environments, will resist to corrosion better than those which operate in hot and humid regions. Each owner/operator is encouraged to develop or improve their own maintenance program to prevent corrosion based on the mission and environment in which the helicopter(s) operates.

2. Wash forward fuselage and side body fairings (left and right side) with cleaning

compound (C-318) and water solution. Rinse thoroughly and wipe dry.

-NOTE-

For information on damage and repair procedures not contained in this bulletin, please contact Product Support Engineering.

-NOTE-

Helicopter interior configurations will vary. Refer to applicable Instructions for Continued Airworthiness (ICA) to gain access to the inspection areas (Figure 1).

3. Perform a detailed visual inspection (DVI) of the left and right side body fairing attachment fasteners for signs of cracks in the paint, corrosion, distortion, and looseness as follows

   a. Using a 10X power magnifying glass and bright light source, carry out a detailed visual inspection of the fasteners in the following inspection areas on the left and right sides of the helicopter.

      (1) Side body fairing to FS 155 fuselage interface (Figure 1, Detail A)

      (2) Side body fairing to FS 121.4 lower shell splice (Figure 1 Detail B)

   b. If discrepancies are noted contact Product Support Engineering productsupport@bellflight.com for recommended actions or a structural repair. Once corrective actions have been provided go to step 4.

   c. If no discrepancies are noted, go to step 4.

4. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART I** of this Alert Service Bulletin.

PART II: Recurring inspection of all fasteners of the left and right side body fairings.

1. Prepare the helicopter for maintenance.

-NOTE-

All Bell helicopters receive corrosion protection such as paint, sealants, preservative compounds, plating, and other finishes to help prevent environmental deterioration. The Corrosion Control Guide CSSD-PSE-87-001 provides guidance to

owners/operators and serves them to develop their own corrosion control program for continued economical and safe operation of their helicopters. The CSSD manual sets the minimal inspection requirements for corrosion not to exceed 100 flight hours or 90 days, whichever occurs first. Helicopters, while operating in hot and dry environments, will resist to corrosion better than those which operate in hot and humid regions. Each owner/operator is encouraged to develop or improve their own maintenance program to prevent corrosion based on the mission and environment in which the helicopter(s) operates.

2. Wash forward fuselage and side body fairings (left and right side) with cleaning compound (C-318) and water solution. Rinse thoroughly and wipe dry.

-NOTE-

For information on damage and repair procedures not contained in this bulletin, please contact Product Support Engineering.

-NOTE-

Helicopter interior configurations will vary. Refer to applicable Instructions for Continued Airworthiness (ICA) to gain access to the inspection areas (Figure 1).

3. Perform detailed visual inspection (DVI) of the left and right side body fairing attachment fasteners for signs of cracks in the paint, corrosion, distortion, and looseness as follows:

   a. Using a 10X power magnifying glass and bright light source, carry out a DVI of the fasteners in the following inspection areas.

      (1) Left and right side body fairing to FS 155 fuselage interface (Figure 1, Detail A).

      (2) Left and right side body fairing to FS 121.4 lower shell splice (Figure 1, Detail B).

4. Perform a general visual inspection (GVI) of the left and right-side body fairing attachment fasteners for signs of cracks in the paint, corrosion, distortion, and looseness as follows:

   a. Left and right side body fairing to seat back bulkhead splice interface (Figure 1, Detail F). This will require removal, and installation, of left and right forward-facing

aft passenger seats (407-MM, Chapter 25).

b. Left and right side body fairing to roof panel interface (Figure 1, Detail D and M).

c. Left and right side body fairing to belly panel interface (Figure 1, Detail E).

d. Right side body fairing to upper and lower door post interface (Figure 1, Detail G and H).

e. Left and right side body fairing to lower nose skin interface (Figure 1, Detail I).

f. Side body fairing to right window former area (Figure 1, Detail J).

g. Left and right side body fairing to lower door frame joint interface (Figure 1, Detail C and N).

h. Left side body fairing forward aft facing passenger door frame interface (Figure 1, Detail L).

i. Left and right side body fairing to cockpit door frame interface (Figure 1, Detail K).

-NOTE-

The Chapter 5 of the 407-MPI (Maintenance Planning Information) provides the minimum maintenance requirements applicable to all 407 helicopters. Any additional requirements needed, or shortened intervals required due to geographical location and/or type of operations, fall under the responsibility of the owners/operators.

-NOTE-

For information on damage and repair procedures not contained in this bulletin, please contact Product Support Engineering.

5. If discrepancies are noted contact Product Support Engineering productsupport@bellflight.com for recommended actions or a structural repair. Once corrective actions have been provided go to step 6. If no discrepancies are noted, go to step 6.

6. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART II** of this Alert Service Bulletin.

7. For helicopters affected, repeat the requirements of **PART II** of this Alert Service Bulletin every 300 flight hours or 12 months whichever comes first or when

Conditional Inspection for Hard Landing (DMC-407-A-05-50-00-01A-284A-A) is required to be performed.

Table 1 – List of Helicopters Affected by Serial Numbers

54547	54652	54705	54736	54820	54851
54559	54653	54706	54737	54821	54852
54565	54655	54707	54738	54822	54853
54570	54657	54708	54739	54823	54854
54575	54659	54709	54740	54824	54855
54580	54660	54710	54741	54825	54856
54585	54662	54711	54742	54826	54857
54590	54664	54712	54743	54827	54858
54595	54665	54713	54744	54828	54859
54597	54667	54714	54745	54829	54860
54601	54669	54715	54746	54830	54861
54603	54670	54716	54747	54831	54862
54606	54672	54717	54748	54832	54863
54608	54674	54718	54749	54833	54864
54610	54675	54719	54750	54834	54865
54612	54677	54720	54751	54835	54866
54614	54679	54721	54752	54836	54867
54616	54682	54722	54806	54837	54868
54618	54684	54723	54807	54838	54869
54620	54685	54724	54808	54839	54871
54622	54687	54725	54809	54840	54872
54624	54689	54726	54810	54841	54873
54626	54690	54727	54811	54842	54874
54628	54692	54728	54812	54843	54876
54630	54694	54729	54813	54844	54877
54632	54695	54730	54814	54845	54880
54634	54697	54731	54815	54846	
54636	54699	54732	54816	54847	
54638	54700	54733	54817	54848	
54640	54702	54734	54818	54849	
54642	54704	54735	54819	54850	

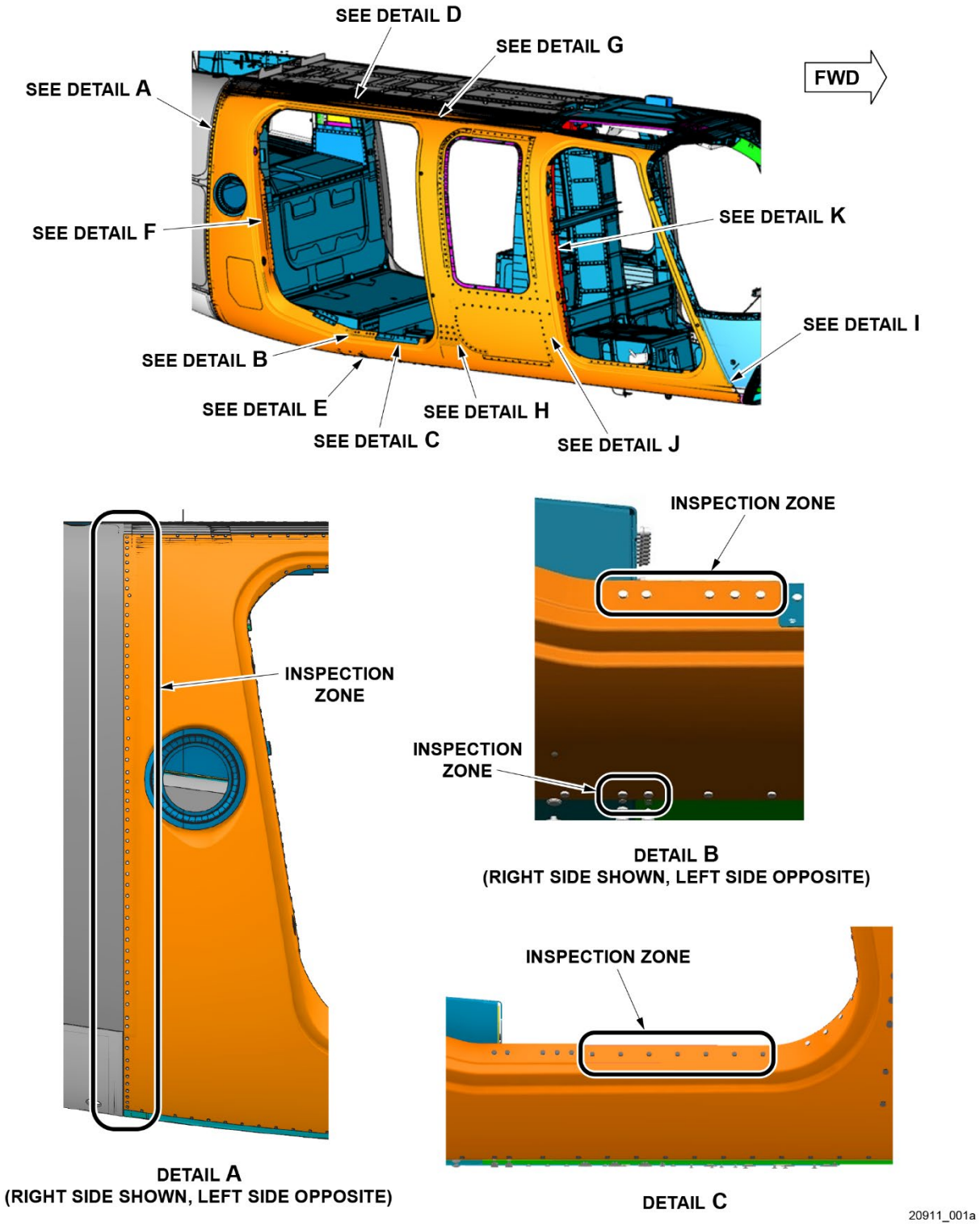


Figure 1 - Inspection Areas (sheet 1 of 4)

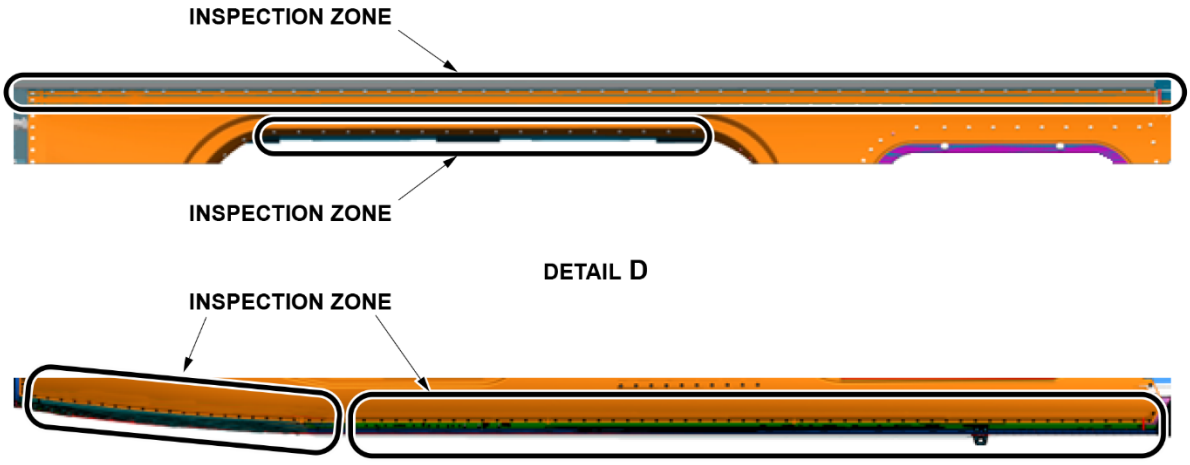
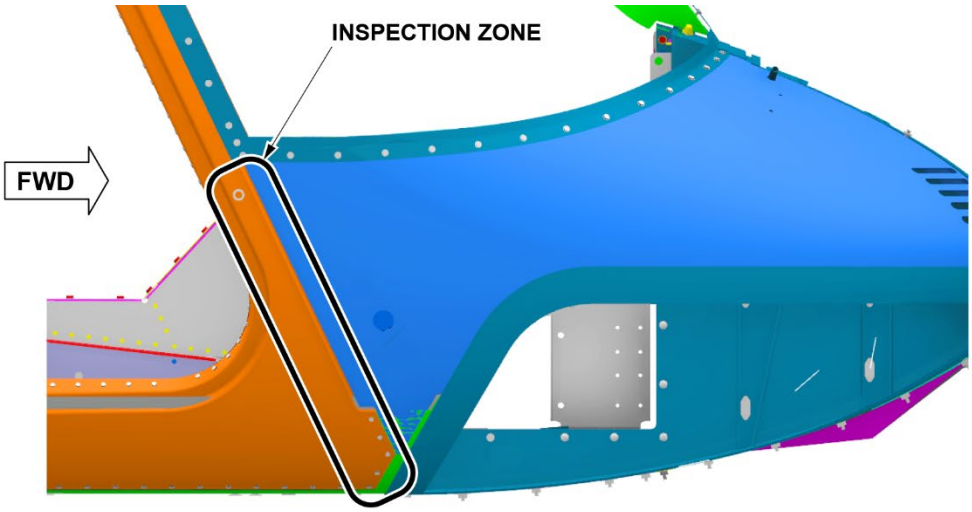
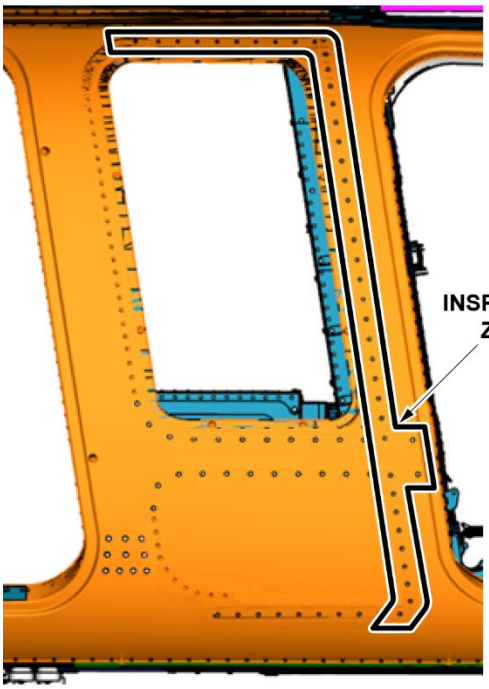


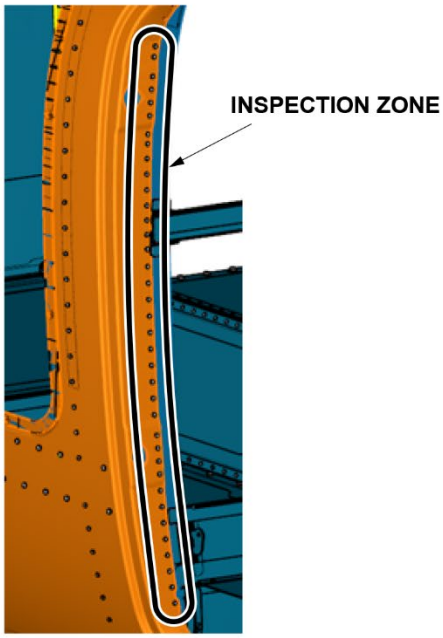
Figure 1 – Inspection Areas (sheet 2 of 4)



DETAIL I
(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE)



DETAIL J



DETAIL K
(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE)

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Figure 1- Inspection Areas (sheet 3 of 4)

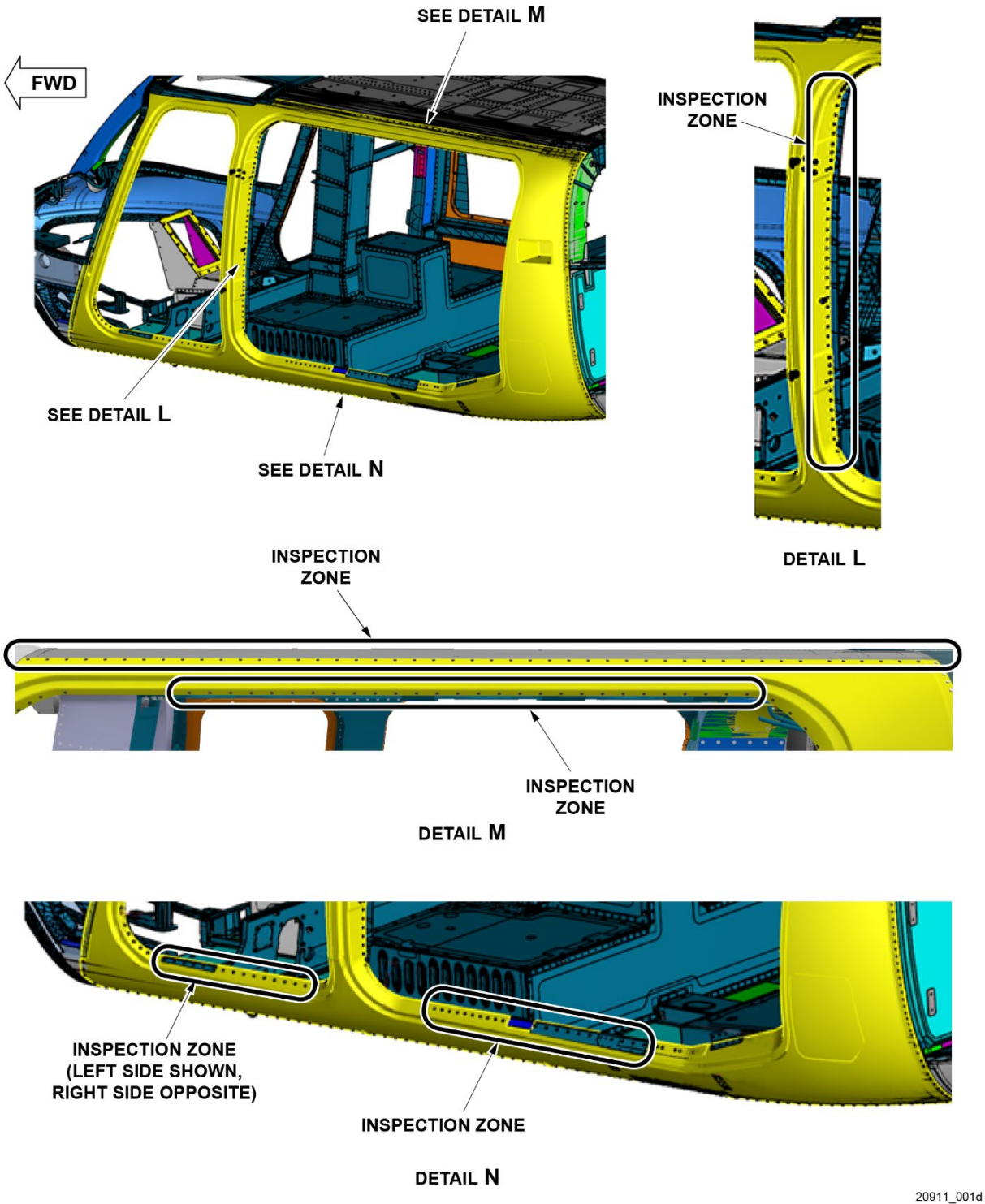

Figure 1 - Inspection Areas (sheet 4 of 4)