# SERVICEABLE PART TAG

| Date Printed: 08-Nov-2017 | I004DQ10 | Page: Page 1 of 1 |
|---|---|---|

| TAM SA (TAM LINHAS AEREAS S.A)<br>OTHER (Other) | Financial Class:<br>ROTABLE (ROTABLE) |
|---|---|

| Manufacturer: F6198 | Manufacturer Part No.: V53132010000 | Serial No.: RADV0042 | Qty: 1 |
|---|---|---|---|

| Lot No.:<br>BIN: | Batch No.: |
|---|---|
| ICN: | Shelf Life Expiry: |

| Part Name: RADOME | AFH: TSN: 4,596.9 TSO: 4,596.9 | Cycles: TSN: 489 TSO: 489 |
|---|---|---|

| Purchase Order: | Last Condition: REP (Repaired) |
|---|---|

| Warranty | Warranty Type | Vendor | Expiry Date |
|---|---|---|---|
| PurchaseA350WtyStd48mth | ASSEMBLY | FAPE3 | |

**Comments/Remarks:**

THE RADOME WAS REPAIRED ACCORDING TO SPECIAL REPAIR PROCEDURE RADOME-A-53-10-11-05001-664B-C AND PAINTING

SPECIAL REAPIR PROCEDURE RADOME-A-53-10-11-09001-664B-C REV. 003 JUN.26/17

**Inspected By**

| Name (Please Print): CELSO MARUCCI | Notes: |
|---|---|
| Signature: CELSO TAM MARUCCI 11637-0 | Date: 11/8/2017 10:13:19AM |

**Incoming Inspection Check List**

| | YES | N/A | | YES | N/A | | YES | N/A |
|---|---|---|---|---|---|---|---|---|
| Hazmat / Dangerous Goods Material (IATA) | ☐ | ☐ | M.S.D.S. | ☐ | ☐ | QC Acceptance | ☐ | ☐ |
| Control Temperature | ☐ | ☐ | Tool | ☐ | ☐ | | | |
| Shelf Life | ☐ | ☐ | Work Shop | ☐ | ☐ | | | |
| C.OF.C Manufacturer | ☐ | ☐ | Good Physical Condition | ☐ | ☐ | | | |
| Form 8130-3 / EASA FORM1 y/o Equiv. | ☐ | ☐ | Documentation Complete and Correct | ☐ | ☐ | | | |
| Certificate of Analysis | ☐ | ☐ | Drop Shipment (Paperwork Only) | ☐ | ☐ | | | |

Form OP-027 REV.00

# TALLY SHEET

T00CSC6L

**Check Name:**

Repair RADOME (PN: V53132010000, SN: RADV0042)

| Work Order No: | Station: | Start Date: |
|---|---|---|
| RO - 96584859 | QSC/QSCMY32 | 30-Oct-2017 16:51 |

| Aircraft: | Flight Hours: | | Flight Cycles: | |
|---|---|---|---|---|
| RADOME (PN: V53132010000, SN: RADV0042) | TSN: 4596,89 | TSO: 4596,89 | CSN: 489 | CSO: 489 |

**Task List**

| Line | Zone | Task Name | Barcode | Checked |
|---|---|---|---|---|
| 1 | | BIRD STRIKE ( NLG AREA) | T00CSC6K | |

**Signatures:**

| Skill | Hours | Performed By (Print) | Signature | Date |
|---|---|---|---|---|
| | | | | |

**14 CFR 43.9 Return to Service Certifies that, unless otherwise specified, the work identified and described in this form, has been accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service**

**Date Printed:** 08-Nov-2017

**Form TS-001 Rev 01**

LATAM

COM N° 0910-02 / ANAC

# Workshop Report

| Oficina *(Shop)* | Sol. de Serviço *(Track N°)* |
|---|---|
| QSCMY32 | RO - 96584859 |
| **OS** *(Work Order)* | **Data** *(Date)* |
| T00CSC6L | 07-11-2017 |

| P/N | Nome *(Name)* | Qtd. *(Qty)* | TSN | CSN |
|---|---|---|---|---|
| V53132010000 | RADOME | 1 | 4596,89 | 489 |
| **S/N** | | | **TSO** | **CSO** |
| RADV0042 | | | 4596,89 | 489 |

| Motivo de Remoção *(Removal Reason)* | Serviço Solicitado *(Asked Work)* | Condição de Recebimento *(Receiving Condition)* |
|---|---|---|
| IMSCHD - Unscheduled Failure | **Remoção Confirmada** *(Confirmed Removed)* [X] *Sim (Yes)* [ ] *Não (No)* | |

**Serviço Executado** *(Accomplished Work)*

THE RADOME WAS REPAIRED ACCORDING TO SPECIAL REPAIR PROCEDURE
RADOME-A-53-10-11-05001-664B-C AND PAINTING SPECIAL REAPIR PROCEDURE
RADOME-A-53-10-11-09001-664B-C REV. 003 JUN.26/17

**Tipo de Serviço Executado** *(Work Accomplished Type)*

Repaired

| P/N | S/N |
|---|---|
| V53132010000 | RADV0042 |

**Mandatórias e Boletins Aplicados** *(AD's, SB's, Mod's Embodied)*

**Certificado de Aeronavegabilidade** *(Release Certificate)*

RO - 96584859

**Etiqueta de Material** *(Material Tag)*

T00CSC6L

**Materiais Usados** *(Parts Used)*

| P/N | Qtde. *(QTY)* | UM *(UI)* |
|---|---|---|

**Causa Primária da Falha** *(Failure Cause)*

BIRD STRIKE ( NLG AREA).

**Nome** *(Name)*

TAM - 46846
LEANDRO
184815

**Aprovado por** *(Approved by)*

TAM - 5445
FÁBIO -1
116839

**Data** *(Date)*

NOV/01, 2017

| 1. País *(Country)* | 2. Título (Title) | 3. Certificado N° (Certificate N°. / System Tracking Ref.) |
|---|---|---|
| **BRASIL** | **AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL** (BRAZILIAN CIVIL AVIATION AUTHORITY)<br>**CERTIFICADO DE LIBERAÇÃO AUTORIZADA** (AUTHORIZED RELEASE CERTIFICATE)<br>**ETIQUETA DE APROVAÇÃO DE AERONAVEGABILIDADE** (AIRWORTHINESS APPROVAL TAG)<br>**Formulário (Form) F-100-01 (SEGVÔO 003)** | RO - 96584859 |

| 4. **Empresa (Nome e Endereço)** (Organization - Name and Address) | 5. Ordem de Serviço / Contrato / Nota Fiscal *(Work Order, Contract or Invoice)* |
|---|---|
| TAM Linhas Aéreas S/A<br>São Carlos SP, Brazil<br>Rodovia SP 318, km 249,5, CEP 13560-970 | T00CSC6L |

| 6. Item (Item) | 7. Descrição (Description) | 8. Número da Peça (Part Number) | 9. Quantidade (Quantity) | 10. Número de Série / Lote (Serial / Batch Number) | 11. Categoria / Trabalho (Status / Work) |
|---|---|---|---|---|---|
| 1 | RADOME | V53132010000 | 1 | RADV0042 | Repaired |

12. Observações (Remarks) THE RADOME WAS REPAIRED ACCORDING TO SPECIAL REPAIR PROCEDURE RADOME-A-53-10-11-05001-664B-C AND PAINTING SPECIAL REAPIR PROCEDURE RADOME-A-53-10-11-09001-664B-C REV. 003 JUN.26/17

TAM certifies that work specified in Blocks 11 and 12 was carried out in accordance with EASA Part 145 and in respect to that work the product/article is considered ready for release to service under EASA Part 145 Approval Number EASA.145.0067.

Partes com vida limitada devem ser acompanhadas de histórico de manutenção incluindo tempo total / ciclo total / tempo desde que novo. (Limited life parts must be accompained by maintenance history including total time / total cycles / time since new)

13. Certifica que o(s) item(ns) acima identificado(s) foi (foram) fabricado(s) em conformidade aos:
(Certifies that the article(s) identified above was (were) manufactured in conformity to:)

☐ dados de projeto aprovados e está(ão) em condição segura de operação
(approved design data and are in a condition for safe operation)

☐ dados de projeto não aprovado especificados no bloco 12
(non-approved design data specified in block 12)

18. [X] Retorno ao serviço de acordo com RBAC 43.9 (Return to service in accordance with RBAC 43.9) [X] Outros regulamentos especificados no bloco 12 (Other regulations specified in block 12)

**Certifica que, a menos especificado no bloco 12, o trabalho especificado no bloco 11 e descrito no bloco 12 foi executado de acordo com o Regulamento Brasileiro da Aviação Civil - RBAC 43 e, em relação ao trabalho realizado, a(s) peça(s) é(são) aprovada(s) para retorno ao seviço.**
(Certifies that, unless otherwise specified in block 12, the work identified in block 11 and described in block 12 was accomplished in accordance with Brazilian Regulation for Civil Aviation - RBAC 43 and in respect to the work performed the part(s) is (are) approved for return to service.)

| 14. Assinatura do Representante da ANAC - (ANAC Representative Signature) | 15. Nº Autorização da ANAC - (ANAC Authorization No.) | 19. Pessoa Autorizada (Authorized Signature) | 20. Nº COM / ETA - (Certificate Number) |
|---|---|---|---|
| 16. Nome (Name) | 17. Data (Date) | 21. Nome (Name) TAM - 6445 FÁBIO -1 116839 | 22. Data (Date) 07-Nov-2017 |

* O INSTALADOR DEVE FAZER VERIFICAÇÃO CRUZADA DA APLICABILIDADE ATRAVÉS DOS DADOS TÉCNICOS APLICÁVEIS. (INSTALLER MUST CROSS CHECK ELIGIBILITY WITH APPLICABLE TECHNICAL DATA.)

**RESPONSABILIDADE DO USUÁRIO/INSTALADOR** **(USER/INSTALLER RESPONSABILITY)**

É IMPORTANTE COMPREENDER QUE A EXISTÊNCIA DESTE DOCUMENTO POR SI SÓ NÃO CONSTITUI AUTOMATICAMENTE UMA AUTORIZAÇÃO PARA INSTALAR A PARTE/COMPONENTE/CONJUNTO.

(IT IS IMPORTANT TO UNDERSTAND THAT THE EXISTENCE OF THIS DOCUMENT ALONE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITH TO INSTALL THE PART/COMPONENT/ASSEMBLY.)

SE O TRABALHO DO USUÁRIO/INSTALADOR É REALIZADO DE ACORDO COM OS REGULAMENTOS NACIONAIS DE UMA AUTORIDADE DE AERONAVEGABILIDADE DIFERENTE DA AUTORIDADE DE AERONAVEGABILIDADE DO PAÍS ESPECIFICADO NO BLOCO 1, É ESSENCIAL QUE O USUÁRIO/INSTALADOR ASSEGURE QUE A SUA AUTORIDADE DE AERONAVEGABILIDADE ACEITA PARTES/COMPONENTES/CONJUNTOS DA AUTORIDADE DE AERONAVEGABILIDADE DO PAÍS ESPECIFICADO NO BLOCO 1.

(WHERE THE USER/INSTALLER WORK IS PERFORMED IN ACCORDANCE WITH THE NATIONAL REGULATIONS OF AN AIRWORTHINESS AUTHORITY DIFFERENT THAN THE AIRWORTHINESS AUTHORITY OF THE COUNTRY SPECIFIED IN BLOCK 1, IT IS ESSENCIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER AIRWORTHINESS AUTHORITY ACCEPTS PARTS/COMPONENTS/ASSEMBLIES FROM THE AIRWORTHINESS AUTHORITY OF THE COUNTRY SPECIFIED IN BLOCK 1.)

AS DECLARAÇÕES NOS BLOCOS 13 E 18 NÃO CONSTITUEM UM CERTIFICADO DE INSTALAÇÃO EM TODOS OS CASOS, OS REGISTROS DE MANUTENÇÃO DA AERONAVE DEVEM CONTER UM CERTIFICADO DE INSTALAÇÃO EMITIDO DE ACORDO COM REGULAMENTOS NACIONAIS PELO USUÁRIO/INSTALADOR ANTES QUE A AERONAVE POSSA SER LIBERADA PARA VÔO.

(STATMENTS IN BLOCK 13 AND 18 DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES, AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN).

1. Approving National Aviation Authority /Country:
FAA / United States

2.
# AUTHORIZED RELEASE CERTIFICATE
**FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**

3. Form Tracking Number:
RO - 96584859

4. Organization Name and Address

TAM Linhas Aéreas S/A
São Carlos SP, Brazil
Rodovia SP 318, km 249,5, CEP 13560-970
T7PY-759F

5. Work Order / Contact / Invoice Number:
T00CSC6L

| 6. ITEM | 7. DESCRIPTION | 8. PART NUMBER | 9. QUANTITY | 10.SERIAL / BATCH NUMBER | 11. STATUS / WORK |
|---|---|---|---|---|---|
| 1 | RADOME | V53132010000 | 1 | RADV0042 | Repaired |

12. REMARKS THE RADOME WAS REPAIRED ACCORDING TO SPECIAL REPAIR PROCEDURE RADOME-A-53-10-11-05001-664B-C AND PAINTING SPECIAL REAPIR PROCEDURE RADOME-A-53-10-11-09001-664B-C REV. 003 JUN.26/17

13a. Certifies the items identified above were manufactured in conformity to:
- ☐ Approval design data and are in a condition for safe operation.
- ☐ Non- approved design data specified in Block 12.

13b. Authorized Signature:

13c. Approval /Authorization No:

13d. Name (Typed / Printed)

13e. Date (dd/mmm/yyyy):

14a. ☒ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12

Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulation, part 43 and in respect to that work. the items are approved for return to service.

14b. Authorized Signature:
AM - 6445
FÁBIO -1
116839
FABIO CORDEIRO

14c. Approval /Certificate No:
T7PY-759F

14d. Name (Typed or printed):

14e. Date (dd/mmm/yyyy):
07-Nov-2017

**USER / INSTALLER RESPONSABILITIES**

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.
Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.
Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

# Special repair procedure

DMC: RADOME-A-53-10-11-09001-664B-C (2017-06-26)

## 1 RADOME – Special repair procedure (Application of Paint)

**Job description**
To apply the paint after a repair of outer skin.

## *Preliminary requirements*

### Support equipment

*Support equipment*

| Nomenclature | Identification no. | Qty |
|---|---|---|
| Spray gun | Tool: No specific | 1 |
| Stove | Tool: No specific | 1 |
| Shaker | Tool: No specific | 1 |
| Thickness Gauge PaintBorer | Tool: No specific | 1 |
| Air blow gun | Tool: No specific | 1 |

### Consumables, materials and expendables

*Consumables, materials and expendables*

| Nomenclature | Identification no. | Qty |
|---|---|---|
| Isopropyl alcohol | Cons.: No specific | AR |
| Diestone DLS | Cons.: No specific | AR |
| Reactive primer paint (P99) | Cons.: 7641/3600 | AR |
| Surfacer paint (5014) | Cons.: 5425/0000 CELOMER | AR |
| Anti-static paint type II | Cons.: 5420/2620 CELOMER | AR |
| Anti-static paint kit type II | Cons.: 0986/2620/008 CELOMER | AR |
| Anti-erosion paint (Celoflex) | Cons.: 5478/0000 CELOMER | AR |
| Adhesive tape | Cons.: No specific | AR |
| Abrasive paper (P400 or P600) | Cons.: P400 or P600 (ISO/FEP Standard) | AR |
| Abrasive paper (320 or 400) | Cons.: 320 or 400 (CAMI Standard) | AR |
| Presaturated Wipe | Cons.: SOCOSAT PPA60 | AR |
| De-mineralized water | Cons.: No specific | AR |
| Dry lint free cloth | Cons.: No specific | AR |
| White soft cloth | Cons.: No specific | AR |
| White-cotton lint-free gloves | Cons.: No specific | AR |
| Metallic sticker | Cons.: No specific | AR |

## Safety conditions

**WARNING**

**USE SOLVENTS/CLEANING AGENTS, SEALANTS AND OTHER SPECIAL MATERIALS ONLY WITH A GOOD FLOW OF AIR THROUGH THE WORK AREA. THESE MATERIALS ARE POISONOUS AND FLAMMABLE AND SKIN IRRITANTS. OBEY THE MANUFACTURERS INSTRUCTIONS. PUT ON PROTECTIVE CLOTHING. DO NOT GET THEM IN YOUR MOUTH. DO NOT SMOKE. DO NOT BREATHE THE GAS. GET MEDICAL HELP IF YOUR SKIN OR EYES BECOME IRRITATED.**

## *Procedure*

### 1.1 Job Set-up

#### 1.1.1 Preparation and stripping

1.1.1.1 Do a mechanical stripping of paint, (RADOME-A-53-10-11-02001-663B-C RADOME – Standard repair procedure (Mechanical Stripping of Paint)).

1.1.1.2 Clean the radome with a Dry lint free cloth and Isopropyl alcohol or Diestone DLS.

1.1.1.3 Do the water break test:

1.1.1.3.1 Make sure that the surface area is dry.

1.1.1.3.2 Soak a Dry lint free cloth with De-mineralized water.

1.1.1.3.3 Move the Dry lint free cloth across the repair area surface to apply a thin layer of water to the surface.

**Note**

As an alternative, you can spray a thin layer of De-mineralized water on the prepared surface when there is no risk to get water caught in open honeycomb or the structure.

1.1.1.3.4 Do a check of the wet surface to make sure that the surface is clean:

- Make sure that the water layer does not break into several parts on all the surface.
- Make sure that the surface tension of water does not cause drops/beads of water.

1.1.1.3.5 Let the water on the surface for 30 seconds and make sure that the water layer does not break into several parts on the surface during this period.

1.1.1.3.6 If there are drops or beads in less than 30 seconds:

- Clean again.
- Rub the surface lightly with Abrasive paper (P400 or P600) or Abrasive paper (320 or 400)
- Clean the repair area with De-mineralized water.
- Dry with a Dry lint free cloth.
- Do again the water break test.

**Note**

Do not put water directly onto the laminated surface, use a clean lint-free cloth soaked with water.

1.1.1.3.7 At the end of this procedure, dry the surface with a clean Dry lint free cloth.

TAM - 45674 WILIAN 280170 NOV 0 3 2017

**Note**

After this test, use a White-cotton lint-free gloves when you touch the component.

1.1.1.4 Put 20 mm (0.79 in) wide Adhesive tape over the latches on fittings.

### 1.1.2 Preparation of the Paint (applicable to surfacer paint, anti-Static paint and anti-erosion paint)

1.1.2.1 Before opening, shake each tin for 15 minutes with a Shaker.

**Note**

The drying and pre-drying times at ambient temperature are given for 23 ±2 deg.C (73.4±3.6 deg.F) with relative humidity of 55 ±5%.

1.1.2.2 Make the mixture in the reservoir of the gun with the proportions given on the manufacturer's technical sheets.

1.1.2.3 Do a check of viscosity and adjust it with the thinner as shown in table.

| MATERIAL | MIX RATIO | VISCOSITY |
|---|---|---|
| Surfacer paint (5014) | Base 5425/0000: 2 volumes<br>Hardener 0709/9000: 1 volume<br>Thinner 0491/9000: 1 to 1.5 volume (for viscosity) | from 17 s to 20 s. AFNOR4 at 20 °C (68 °F) |
| Anti-static paint type II or Anti-static paint kit type II | Base 5420/2620: 3 volumes<br>Hardener 0709/9000: 1 volume<br>Thinner 0491/9000: 1 volume (for viscosity) | from 19 s to 23 s. AFNOR4 at 23 °C (73.4 °F) |
| Anti-erosion paint (Celoflex) | Base 5478/0000: 1 volume<br>Hardener 0778/9000: 1 volume<br>Thinner 0470/9000: 0.5 to 1 volume (for viscosity) | from 14 s to 18 s. AFNOR4 at 20 °C (68 °F) |

#### 1.1.2.4 Preparation of Reactive primer paint (P99)

1.1.2.4.1 After opening, make sure that the two components are completely free of particles.

1.1.2.4.2 Do the mixture as follows:

| MATERIAL | MIX RATIO |
|---|---|
| Reactive primer paint (P99) | Base 7641/3600: 1 volume<br>Hardener 0841/9000: 1 volume<br>Thinner 0434/9000: 0.1 to 0.3 volume (for viscosity) |

1.1.2.4.3 Shake the mixture during 30 s.

**Note**

Use a clean mixer for mixture quantity more than one liter.

## 1.2 Procedure

**WARNING**

(Figure 2 Radome - Location of Control Points of Painting)

(Figure 3 Radome - Paint Borer Method)

### 1.2.1 Application of Reactive primer paint (P99)

**Note**

Each stud (one screw and one nut) is used to attach its related lightning arrestor strip to the Radome shell.

1.2.1.1 Carefully, remove the grease on the studs and metallic parts with Isopropyl alcohol .

1.2.1.2 Apply with a spray gun one layer of Reactive primer paint (P99) on the studs and all fasteners.

1.2.1.3 Let the paint dry at ambient temperature for a minimum of 1 h.

### 1.2.2 Application of Surfacer paint (5014)

1.2.2.1 Do the masking of the all studs and all metallic parts (latches handles) with Adhesive tape.

1.2.2.2 If paint borer not available, apply a Metallic sticker on the studs (with homogeneous distribution) for further paint thickness measurement with eddy current.

1.2.2.3 Do not discard the Metallic sticker after removal.

1.2.2.4 Surface filling

1.2.2.4.1 With a Spray gun, apply a layer of Surfacer paint (5014).

1.2.2.4.2 Rub fully the paint on the radome with a White soft cloth.

1.2.2.4.3 Apply a thin layer of Surfacer paint (5014).

1.2.2.4.4 Let dry.

1.2.2.4.5 Sand the paint until you see the original color.

1.2.2.4.6 Clean the radome with an Air blow gun then apply a White soft cloth.

1.2.2.5 Lightly rub all the surface of radome Abrasive paper (P400 or P600) or Abrasive paper (320 or 400).

1.2.2.6 With a Spray gun, apply laterally 2 layers (max. thickness 20 to 30 µm (787.4 to 1181.1 µin) of Surfacer paint (5014) at intervals of 2, 3 minutes.

1.2.2.7 Let the paint dry at ambient temperature for 15 minutes.

1.2.2.8 Let the radome at 60 deg.C (140 deg.F) maximum for 1 hour.

1.2.2.9 Let it cool at ambient temperature.

1.2.2.10 Remove the masking on all studs and all metallic parts (except locking handles).

1.2.2.11 Do a check of the thickness 20 to 30 µm (787.4 to 1181.1 µin) applied.

1.2.3 **CAUTION**

**MAKE SURE THAT YOU APPLY THE ANTI-STATIC PAINT BEFORE A MAXIMUM TIME OF 16 HOURS.**

## Application of Anti-static paint type II or Anti-static paint kit type II

1.2.3.1 Apply with a Spray gun a first layer and a second layer (30 to 50 µm (1181.1 to 1968.5 µin)) of Anti-static paint type II or Anti-static paint kit type II on all external surfaces and edge of shell and the edge of housing of latches.

1.2.3.2 Let the paint dry at ambient temperature for 30 min.

1.2.3.3 Put the radome at 60 °C (140 °F) maximum for 3 h in the Stove.

1.2.3.4 Let it cool at ambient temperature.

1.2.3.5 Do a check of the electrical surface resistance (Refer to RADOME-A-53-10-11-01001-366B-C RADOME – Resistance Check (with antistatic paint tester) or RADOME-A-53-10-11-02001-36 6B-C RADOME – Resistance Check (with Megohmmeter)).

1.2.3.6 Do a check of the electrical continuity (Refer to RADOME-A-53-10-11-01001-365B-C RADOME – Continuity Check (with antistatic paint tester) or RADOME-A-53-10-11-02001-365B-C RADOME – Continuity Check (with Megohmmeter).

1.2.3.7 If the values are too high, put the radome in the Stove one more hour at 60 °C (140 °F) maximum and do again the Step 1.2.3.5 and Step 1.2.3.6.

1.2.3.8 Do a check of the thickness 30 to 50 µm (1181.1 to 1968.5 µin) applied.

1.2.4 **CAUTION**

**MAKE SURE THAT YOU APPLY THE ANTI-EROSION PAINT BEFORE A MAXIMUM TIME OF 72 HOURS.**

## Application of Anti-erosion paint (Celoflex)

1.2.4.1 Lightly rub the Anti-static paint type II or Anti-static paint kit type II with a scotch-brite or the Abrasive paper (P400 or P600) or Abrasive paper (320 or 400).

1.2.4.2 Clean the radome with a Dry lint free cloth.

1.2.4.3 Apply with a Spray gun four layers (max 80 to 100 µm (3149.6 to 3937 µin)) of Anti-erosion paint (Celoflex) from x=0 to 203 mm (7.10) and make a shading off application from x=203 to 278 mm (7.10 to 10.94 in) (Refer to Figure 1 Radome - Finish and Protection).

**Note**

Wait for 20 minutes between two layers.

1.2.4.4 Let the paint dry at ambient temperature for a minimum of 24 hours or at a maximum of 60 deg.C (140 deg.F) for 4 hours.

1.2.4.5 Let it cool at ambient temperature.

1.2.4.6 Do a check of the thickness 80 to 100 µm (3149.6 to 3937 µin):

1.2.4.6.1 Measure the thicknesses on the five antistatic and anti-erosion measure points (studs of each lightning arrestor), by eddy current (Refer to Figure 2 Radome - Location of Control Points of Painting).

TAM - 45674 WILIAN 280170 NOV 07 2017

1.2.4.6.2 Do the measure of each layer with Thickness Gauge PaintBorer (Refer to Figure 2 Radome - Location of Control Points of Painting and Figure 3 Radome - Paint Borer Method) or eddy current (Refer to Figure 2 Radome - Location of Control Points of Painting) on the top of the radome.

1.2.4.7

**CAUTION**

**MAKE SURE THAT YOU APPLY THE AIRLINE FINISH PAINT BEFORE A MAXIMUM TIME OF 72 HOURS.**

Apply the airline finish paint (Refer to RADOME-A-53-10-11-12001-664B-C RADOME – Special repair procedure (Application of Airline Finish-Paint))

N/A 1.2.4.8 If the repaired radome has to be delivered without airline finish paint, mark the letter Z on the amendment label to identify the radome.

N/A **1.2.5 Post-Repair Control**

**Note**

If paint thickness is out of tolerance, sand the whole radome paint and do the paint application procedure again from beginning.

N/A **1.2.5.1 Thickness of each layer of paint by paint Borer Method**

N/A 1.2.5.1.1 With the Thickness Gauge PaintBorer, do the check at the top of radome cap with the data given in the figure (Refer to Figure 3 Radome - Paint Borer Method)

N/A 1.2.5.1.2 Do a paint touch-up (Refer to RADOME-A-53-10-12-02001-250A-C RADOME – Clean and apply surface protection (Paint Touch-up)).

**1.2.5.2 Thickness of each layer of paint by eddy current Method (if paint borer not available)**

TAM - 45674 WILIAN 280170 NOV 07 2017

1.2.5.2.1 Do the Step 1.2.4.6 and Step 1.2.4.6.1.

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1.2.5.2.2 Keep measurements.

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1.2.5.2.3 Do the measurement on previous removed Metallic stickers.

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1.2.5.2.4 Add Metallic stickers measurements to the ones just measured on studs.

1.2.5.3 The repair sheet related to the paint application has these items:

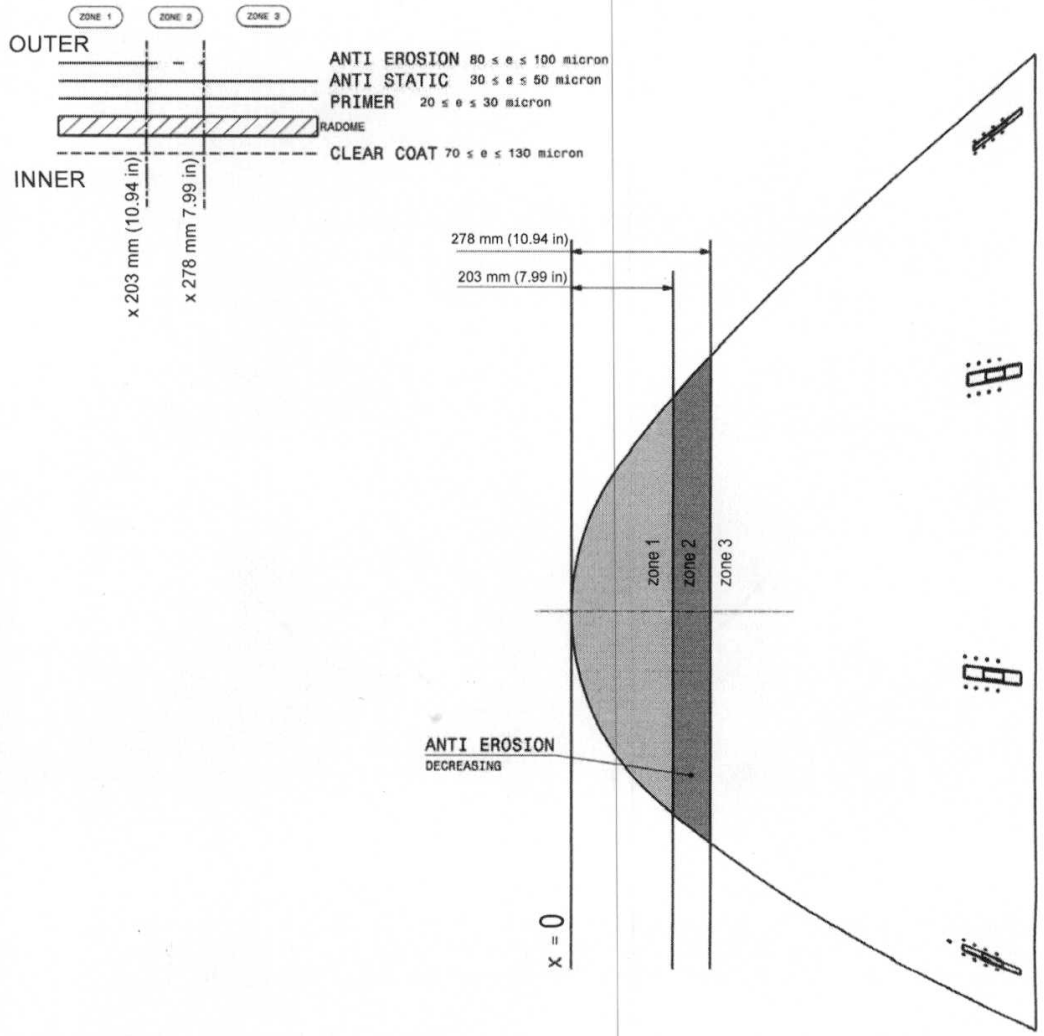
TAM - 45674 WILIAN 280170 NOV 07 2017

- References of materials (life time date of the paint, paint P/N)
- The result of electrical surface resistance and the electrical continuity.
- The result of total thickness of the radome by eddy current sensor method on the lightning arrestor
- The result of the thickness of each layer of paint by Paint borer method.
- The appearance of the paint.

TAM - 45674 WILIAN 280170 NOV 07 2017

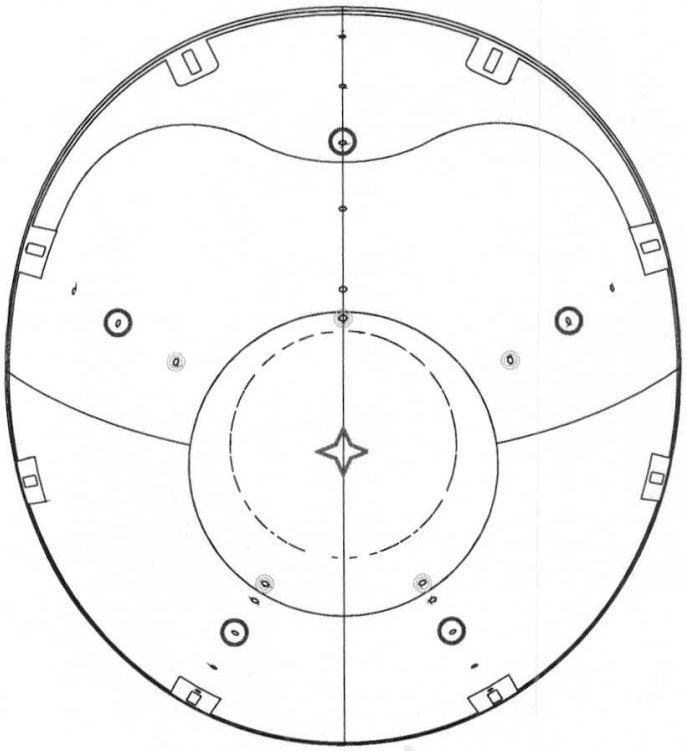
## 1.3 Job Close-up

Not applicable




ICN-RADOME-A-531011-A-F6198-00508-A-001-01

Figure 1 Radome - Finish and Protection



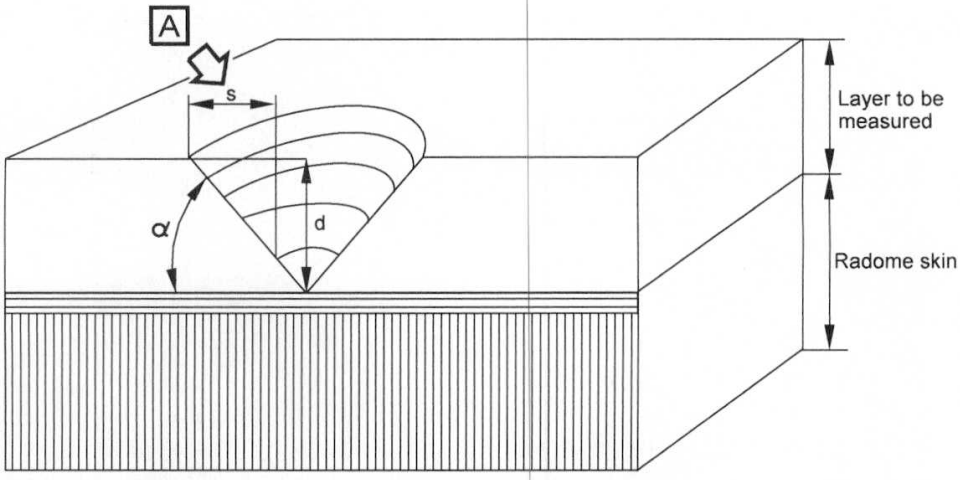
5 Antistatic thickness measurement-points on studs (eddy current measurement)

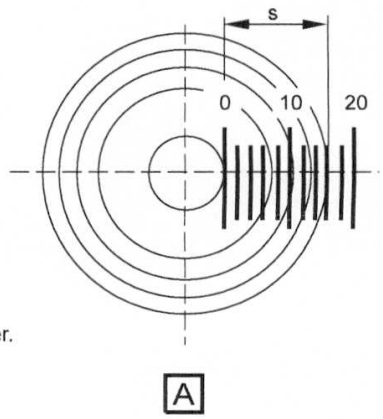
5 Antistatic and antierosion thickness measurement-points on studs (eddy current measurement)

1 Measurement point for primer, antistatic and antierosion layers (measurement with paintborer)

ICN-RADOME-A-531011-A-F6198-00521-A-001-01

Figure 2 Radome - Location of Control Points of Painting




d=s.tan α

d=Coating thickness mesurement

s=Scale marks measured x Scale factor

α=Cutting angle

Nota: Scale factor and Cutting angle depend on drill number.

ICN-RADOME-A-531011-A-F6198-00522-A-001-01

Figure 3 Radome - Paint Borer Method

**End of Data Module: RADOME-A-53-10-11-09001-664B-C**

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TAM

## COMPONENT RESTORATION FORM

Procedure ~~Nº MY32/003 R10,~~

Complete the tables below with the measured values use the column to report them (measure 1).
Each letter corresponds to a lightning arrester strip.
If the values (measure 1) or not according to the expected values, perform the electrical bonding procedure and write the measure on the column (Measure 2)

| Lightning Arrester Strip | Measure 1 ( Max: 2 m Ω ) | Measure 2 ( Max: 2 m Ω ) | Performed by | Inspected by |
|---|---|---|---|---|
| A1 | | | N/A | N/A |
| B2 | | | | |
| A3 | | | | |
| C2 | | | | |
| D | | | | |
| C1 | | | | |
| A2 | | | | |
| B1 | | | | |

**Nose Radome - electrical surface continuity Test**

Complete the table with the measured values, all values must be less than 200 MΩ², use the figures 1 thru 3 attached to identify the points as reference.
**Note:** Complete the underline beside P letter

Performed by: TAM - 45674 WILIAN 280170 NOV.4,2017
Inspected by: N/A

Equipments applied to Continuity Check:

| Equipment | Part Number | Serial Number | Calibration due date |
|---|---|---|---|
| INSULATION ~~TESTER~~ | MU0182 | 20410319 | DEC.19,2017 |

| | | | | |
|---|---|---|---|---|
| P_ 62 MΩ² | P_ 64 MΩ² | P_ 41 MΩ² | P_ 54 MΩ² | P_ 60 MΩ² |
| P_ 53 MΩ² | P_ 59 MΩ² | P_ 71 MΩ² | P_ 51 MΩ² | Σ Pn/n = 57.2 MΩ² |

| Performed by | Inspected by |
|---|---|
| TAM - 45674 WILIAN 280170 NOV.4,2017 | N/A |

**Nose Radome - electrical surface resistance Test**

Complete the table with the measured values, all values must be within 5 MΩ² and 100 MΩ², use the figures 1 thru 3 attached to identify the points as reference.

Performed by: TAM - 45674 WILIAN 280170 NOV.4,2017

Inspected by: N/A

Equipments applied to Continuity Check:

| Equipment | Part Number | Serial Number | Calibration due date |
|---|---|---|---|
| INSULATION TESTER | MU0182 | 20410319 | Dec.19,2017 |

| | | | | |
|---|---|---|---|---|
| P1 58 MΩ² | P2 62 MΩ² | P3 65 MΩ² | P4 61 MΩ² | P5 74 MΩ² |
| P6 51 MΩ² | P7 67 MΩ² | P8 45 MΩ² | P9 44 MΩ² | P10 38 MΩ² |
| P11 32 MΩ² | P12 31 MΩ² | P13 44 MΩ² | P14 41 MΩ² | P15 45 MΩ² |
| P16 40 MΩ² | P17 63 MΩ² | P18 51 MΩ² | P19 42 MΩ² | P20 63 MΩ² |
| P21 37 MΩ² | P22 53 MΩ² | P23 31 MΩ² | P24 49 MΩ² | P25 55 MΩ² |
| P26 57 MΩ² | P27 31 MΩ² | P28 41 MΩ² | P29 42 MΩ² | P30 44 MΩ² |
| P31 35 MΩ² | P32 48 MΩ² | P33 33 MΩ² | P34 49 MΩ² | P35 64 MΩ² |
| P36 55 MΩ² | P37 61 MΩ² | P38 61 MΩ² | P39 59 MΩ² | P40 60 MΩ² |
| P41 57 MΩ² | P42 42 MΩ² | P43 37 MΩ² | P44 62 MΩ² | P45 36 MΩ² |
| P46 55 MΩ² | P47 46 MΩ² | P48 40 MΩ² | P49 39 MΩ² | Σ Pn/n = 48.8 MΩ² |

Performed by: TAM - 45674 WILIAN 280170 NOV. 4,2017

Inspected by: N/A

Attached figures:

Figure 1

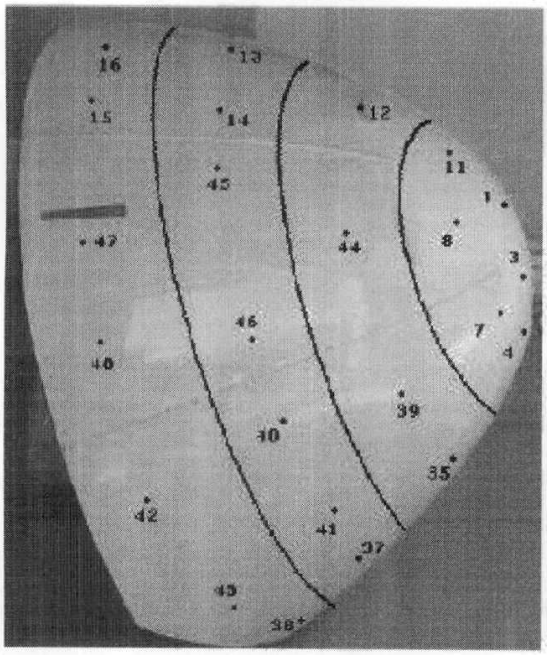



Figure 2

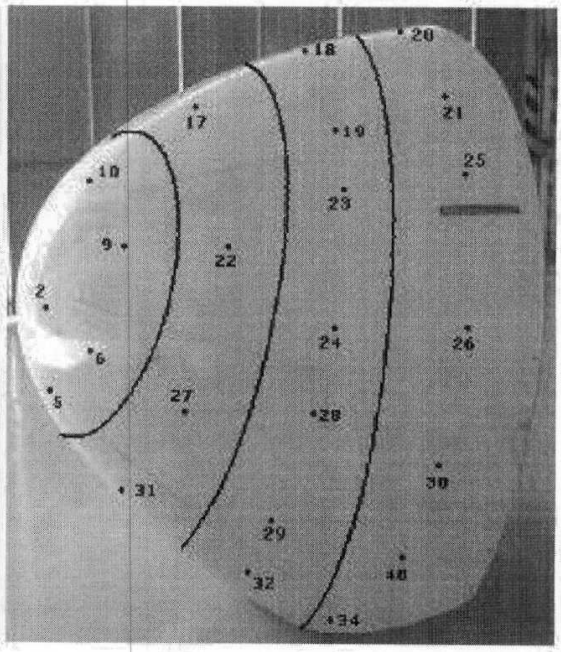
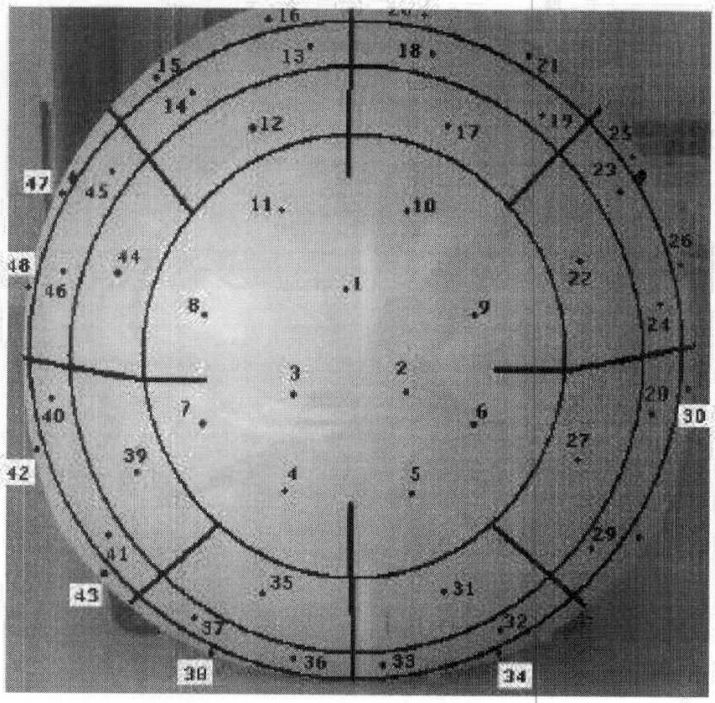



Figure 3



| Application of sealing varnish inside Radome | | |
|---|---|---|
| if the application of sealing varnish is necessary, describe below the sealing varnish thickness. The nominal thickness must be included between 30µ and 100µ. | Performed by: | Inspected by |
| - Final Thickness: N/A µm | TAM - 45674 WILIAN 280170 NOV.4,2017 | N/A |

**PAINTING PROCESS**

**Process Parameters:** P=Preparation A=Application C=Cure I=Inspection

**Material Description:** WASH PRIMER

**Part Number (Base):** 7641 3600-KAHA
**Part Number (Hardener):** 0841/9000
**Part Number (Thinner):** 0434-9000
**Qty used in process:** 120 ml

| | Batch (B, H and T) | Expiry Date (B, H and T) | Temp ºC | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|---|
| P | GOC 48087 | MAR. 31, 2018 | 23.8 | 67.1 | 1:1:1 | 13.0 | TAM - 11967 MAGDALENO 129634 NOV. 4,2017 |
| | SHC 32873 | DEC. 31, 2017 | | | | | |
| | SHC 71655 | JAN. 31, 2026 | | | | | |

| | Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|---|
| A | 24.8 | 57.6 | 01:00 | 0:30 | NOV. 4,2017 | TAM - 11967 MAGDALENO 129634 |

C — Equipment Identification (if applicable): CAB. 2 Beginning: 01:45 h Finish: 02:45 h
Drying Temperature: 55 °C Effective Drying Time: 1:00 h — NOV. 4,2017

| | Visual inspection | Adhesion | Thickness Measured | Others (If applicable) | Performed by: |
|---|---|---|---|---|---|
| I | ☑ Approved ☐ Rejected Findings: NOT FOUND | ☑ Approved ☐ Rejected | 8.1 µm ☑ Approved ☐ Rejected | N/A | TAM - 11967 MAGDALENO 129634 NOV.4,2017 |

**Material Description:** PRIMER BARRIER

**Part Number (Base):** 314531
**Part Number (Hardener):** 308301
**Part Number (Thinner):** 361925
**Qty used in process:** 1000 ml

| | Batch (B, H and T) | Expiry Date (B, H and T) | Temp ºC | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|---|
| P | 0227017030 | JUN. 30, 2018 | 24.3 | 68.4 | 2:1:2 | 19.8 | TAM - 11967 MAGDALENO 129634 NOV.4.2017 |
| | 0227095038 | APR. 30, 2019 | | | | | |
| | 0227087027 | APR. 30, 2020 | | | | | |

| | Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|---|
| A | 24.9 | 59.9 | 3:00 | 0:30 | NOV 4,2017 | TAM - 11967 MAGDALENO 129634 NOV.4,2017 |

TAM

# COMPONENT RESTORATION FORM

Procedure Nº MY32/003 R10

| | | | | | |
|---|---|---|---|---|---|
| C | Equipment Identification (if applicable): CAB. 2 | Beginning: 3 : 45 h | Finish: 4 : 45 h | | TAM - 11967 MAGDALENO 129634 NOV. 4, 2017 |
| | Drying Temperature : 60 °C | | Effective Drying Time: 1:00 h | | |
| I | Visual inspection ☑ Approved ☐ Rejected Findings: NOT FOUND | Adhesion ☑ Approved ☐ Rejected | Thickness Measured 30 µm ☑ Approved ☐ Rejected | Others (If applicable) N/A | Performed by: TAM - 11967 MAGDALENO 129634 NOV. 4, 2017 |

| Material Description: | Part Number (Base): | Qty used in process: |
|---|---|---|
| ANTI-STATIC | 5420 2620 - KADO | 1000 ml |
| | Part Number (Hardener): 07099000 - LQKO | |
| | Part Number (Thinner): 0491/9000 | |

| | Batch (B, H and T) | Expiry Date (B, H and T) | Temp °C | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|---|
| P | GOC 60741 | OCT. 31, 2018 | 25.2 | 64.0 | 3:1:1 | 24.3 | TAM - 45674 WILIAN 280170 NOV. 4, 2017 |
| | SAC 89649 | OCT. 31, 2018 | | | | | |
| | SAC 70380 | DEC. 31, 2025 | | | | | |

| | Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|---|
| A | 26.2 | 62.3 | 11:15 | 0:50 | NOV. 4, 2017 | TAM - 45674 WILIAN 280170 NOV. 4, 2017 |

| | | | | | |
|---|---|---|---|---|---|
| C | Equipment Identification (if applicable): GRION | Beginning: 12 : 30 h | Finish: 15 : 30 h | | |
| | Drying Temperature : 60 °C | | Effective Drying Time: 3:00 h | | |
| I | Visual inspection ☑ Approved ☐ Rejected Findings: NOT FOUND | Adhesion ☑ Approved ☐ Rejected | Thickness Measured 35 µm ☑ Approved ☐ Rejected | Others (If applicable) N/A | Performed by: TAM - 45674 WILIAN 280170 NOV. 4, 2017 |

| Material Description: | Part Number (Base): | Qty used in process: |
|---|---|---|
| CELOFLEX | LATAM0000000000034 | 1000 ml |
| | Part Number (Hardener): 0778 - 9000 | |
| | Part Number (Thinner): 0470 - 9000 NV | |

| | Batch (B, H and T) | Expiry Date (B, H and T) | Temp °C | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|---|
| P | GOC 58931 | FEB. 28, 2018 | 23.7 | 72.4 | 1:1:0,5 | 21.2 | TAM - 45674 WILIAN 280170 NOV. 6, 2017 |
| | SAC 86172 | JAN. 31, 2018 | | | | | |
| | SAC 98348 | JUL. 30, 2027 | | | | | |

| | Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|---|
| A | 25.8 | 69.4 | 11:10 | 1:30 | NOV. 6, 2017 | TAM - 45674 WILIAN 280170 NOV. 6, 2017 |

| | | | | | |
|---|---|---|---|---|---|
| C | Equipment Identification (if applicable): CAB. 2 | Beginning: 13.00 h | Finish: 17 : 00 h | | |
| | Drying Temperature : 60 °C | | Effective Drying Time: 4:00 h | | |
| I | Visual inspection | Adhesion | Thickness Measured | Others (If applicable) | Performed by: |

TAM

# COMPONENT RESTORATION FORM

Procedure Nº MY32/003 R10

| | | | | | |
|---|---|---|---|---|---|
| | ☑ Approved ☐ Rejected<br>Findings: NOT FOUND | ☑ Approved ☐ Rejected | 85 µm<br>☑ Approved ☐ Rejected | N/A | TAM - 45674<br>WILIAN<br>280170<br>NOV.6.2017 |

**Rework:** **P=Preparation** **A=Application** **C=Cure** **I=Inspection**

☒ **Step not Applicable (No Rework)**

| Material Description: | Part Number (Base): | Qty used in process: |
|---|---|---|
| GLOSS WHITE | 8800/E0038 | 1000ML |
| | Part Number (Hardener): 88002 | |
| | Part Number (Thinner): 8800 CT | |

**P**

| Batch (B, H and T) | Expiry Date (B, H and T) | Temp ºC | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|
| A7G164 | JUL.30, 2019 | 25.5 | 61.0 | 2:1:1 | 21.1 | TAM - 11967<br>MAGDALENO<br>129634<br>NOV.7,2017 |
| 98228732 | JUN.30,2019 | | | | | |
| 97909463 | JUN.30,2019 | | | | | |

**A**

| Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|
| 27.6 | 60.2 | 7:15 | 0:40 | NOV.7,2017 | TAM - 11967<br>MAGDALENO<br>129634<br>NOV.7,2017 |

**C**

Equipment Identification (if applicable): CAB.2 Beginning: 8:15 h Finish: 9:15 h

Drying Temperature : 55 °C Effective Drying Time: 1:00 h

**I**

| Visual inspection | Adhesion | Thickness Measured | Others (If applicable) | Performed by: |
|---|---|---|---|---|
| ☑ Approved ☐ Rejected<br>Findings: NOT FOUND | ☑ Approved ☐ Rejected | 65 µm<br>☑ Approved ☐ Rejected | N/A | TAM - 11967<br>MAGDALENO<br>129634<br>NOV.7,2017 |

| Material Description: | Part Number (Base): | Qty used in process: |
|---|---|---|
| | Part Number (Hardener): | |
| | Part Number (Thinner): | |

**P**

| Batch (B, H and T) | Expiry Date (B, H and T) | Temp ºC | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|
| | | | | | | TAM - 45674<br>WILIAN<br>280170<br>NOV.7,2017 |

**A**

| Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|
| | | | | | |

**C**

Equipment Identification (if applicable): _____ Beginning: ____:____ h Finish: ____:____ h

Drying Temperature : _____ °C Effective Drying Time: _____ h

TAM - 45674 WILIAN 280170 NOV.7,2017

**I**

| Visual inspection | Adhesion | Thickness Measured | Others (If applicable) | Performed by: |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| | ☐ Approved ☐ Rejected<br>Findings: | ☐ Approved ☐ Rejected | _____ µm<br>☐ Approved ☐ Rejected | | TAM - 45674<br>WILIAN<br>280170<br>NOV.7,2017 |

| Material Description: | Part Number (Base): | Qty used in process: |
|---|---|---|
| | Part Number (Hardener): | |
| | Part Number (Thinner): | |

| | Batch (B, H and T) | Expiry Date (B, H and T) | Temp °C | Humidity % | Mix Ratio | Visc. ZAHN 2 | Performed by: |
|---|---|---|---|---|---|---|---|
| P | | | | | | | TAM - 45674<br>WILIAN<br>280170<br>NOV.7,2017 |

| | Temp °C | Hum % Cabin | Application Time | Application Man (h/h) | Date | Performed by: |
|---|---|---|---|---|---|---|
| A | | | | | | TAM - 45674<br>WILIAN<br>280170 |

| | | | | | |
|---|---|---|---|---|---|
| C | Equipment Identification (if applicable): _____ Beginning: ____:____ h Finish: ____:____ h<br>Drying Temperature : _____ °C Effective Drying Time: _____h | | | | NOV.7,2017 |

| | Visual inspection | Adhesion | Thickness Measured | Others (If applicable) | Performed by: |
|---|---|---|---|---|---|
| I | ☐ Approved ☐ Rejected<br>Findings: | ☐ Approved ☐ Rejected | _____ µm<br>☐ Approved ☐ Rejected | | TAM - 45674<br>WILIAN<br>280170<br>NOV.7,2017 |

| Another procedures | | |
|---|---|---|
| Describe another procedures performed on the component according to an Approved Technical data ☒ N/A | Performed by: | Inspected by |
| | TAM - 45674<br>WILIAN<br>280170<br>NOV.7,2017 | N/A |

**Remarks**

If any Step of this form was not performed for any reason, write down the motive: ☒ N/A

| Inspected by: | Responsible for releasing the service : |
|---|---|
| Date: N/D | Date: NOV 08, 2014 |

TAM - 5445
FÁBIO -1
116839

REV. N° 003
JUN 26/17

## Special repair procedure

DMC: RADOME-A-53-10-11-05001-664B-C (2017-06-26)

# 1 RADOME – Special repair procedure (Sandwich Zone - Repair by outside on a One-Phase Process (Heat blanket))

**Job description**
This procedure gives the repair principle for structural repair 200 mm (7.87 in) away from the monolithic area (zone C or D), with pre-preg fabrics when the damage is in sandwich area outer and/or honeycomb skin.
For repair sandwich areas (zone A and B) at 200 mm (7.87 in) from the monolithic areas (Zone C or D), refer to RADOME-A-53-10-11-01001-664B-C RADOME – Special repair procedure (Radome repair).

**Note**

Ensure that the repair plies are correctly orientated (same orientation between the repair plies and the damaged ply).

For repaired areas integrated in 500 mm (19.68 in) circle in non-restricted area, lay up of circular repair plies is authorized with WARP direction oriented towards radome cap zone center.

## *Preliminary requirements*

### Support equipment

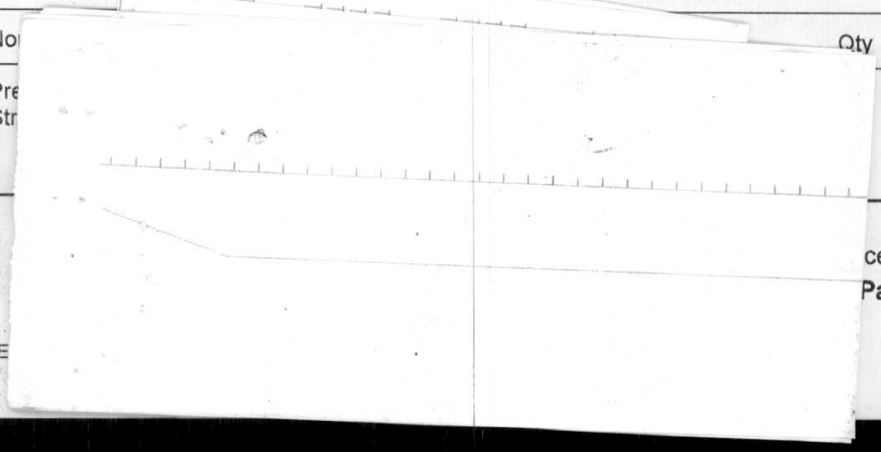
*Support equipment*

| Nomenclature | Identification no. | Qty |
|---|---|---|
| Vacuum System | Tool: No specific | 1 |
| Heat blanket | Tool: No specific | 1 |
| Radome support | Tool: No specific | 1 |
| Mold | Tool: No specific | 1 |
| Local reversed molding | Tool: No specific | 1 |
| Marker pencil | Tool: No specific | 1 |
| Vacuum cleaner | Tool: No specific | 1 |
| Cutter | Tool: No specific | 1 |
| Sharped spatula | Tool: No specific | 1 |
| Oven | Tool: No specific | 1 |
| Rubber spatula | Tool: No specific | 1 |

### Consumables, materials and expendables

*...ls and expendables*

| No | Qty |
|---|---|
| Pre<br>Str | |



*Consumables, materials and expendables (continued)*

| Nomenclature | Identification no. | Qty |
|---|---|---|
| Surface adhesive | Cons.: AF325M.035 | AR |
| Resin | Cons.: Araldite AW106 | AR |
| Hardener | Cons.: HV953U | AR |
| Honeycomb (Hexa =7.8mm, 72kg/m3) | Cons.: HRH10-3/16-4.5 or V00030018200 | AR |
| Honeycomb (Hexa=7.8mm, 144kg/m3) | Cons.: HRH10-1/8-9.0 or V00030019200 | AR |
| Honeycomb (Hexa=25mm, 96kg/m3) | Cons.: HRH10-3/16-6.0 or V00030020200 | AR |
| Alternative honeycomb (Flexcore 7.8mm, 80 kg/m3) | Cons.: HRH10F50-5.0 | AR |
| Vacuum film | Cons.: WN1500 | AR |
| Vaccum bag sealant | Cons.: GS213 | AR |
| Draining fabric | Cons.: COTTON 5145/100 | AR |
| Breather fabric | Cons.: AIRWEAVE N10 | AR |
| Peel ply F | Cons.: 9760 L1500 | AR |
| Fabric | Cons.: 7628 | AR |
| Non perforated release film | Cons.: A4000 | AR |
| Perforated release film | Cons.: WN4500P3 | AR |
| Glass fiber fabric | Cons.: HexForce 00120 1200 Z6040 | AR |
| Isopropylic alcohol | Cons.: No specific | AR |
| Abrasive paper (P80 or 80) | Cons.: P80 (ISO/FEPA Standard) or 80 (CAMI Standard) | AR |
| Abrasive paper (P150 or 150) | Cons.: P150 (ISO/FEPA Standard) or 150 (CAMI Standard) | AR |
| Abrasive paper (P240 or 240) | Cons.: P240 (ISO/FEPA Standard) 240 (CAMI Standard) | AR |
| Lint-free cloth | Cons.: No specific | 1 |
| Demolding Agent | Cons.: No specific | AR |
| Vacuum tube | Cons.: No specific | AR |
| Syringe | Cons.: No specific | 1 |

## Safety conditions

**WARNING**

**PUT ON APPLICABLE PROTECTIVE GEAR. THE SOLVENT IS DANGEROUS FOR LUNGS, SKIN AND EYES.**

**MAKE SURE THAT THERE IS A GOOD FLOW OF AIR THROUGH THE WORK AREA. KEEP THE SOLVENT AWAY FROM HEAT OR SPARKS. THE SOLVENT IS FLAMMABLE AND CAN CAUSE EXPLOSIONS.**

## Procedure

1.1

**CAUTION**

**THE REPAIR WITH HEAT BLANKET IN ONE-PHASE PROCESS IS ONLY POSSIBLE FOR THE DAMAGES LESS THAN OR EQUAL TO 500 mm (19.70 in).**

**CAUTION**

**FOR THE REPAIRS, ALWAYS USE A MOLD THAT HAS THE SHAPE OF THE RADOME.**

**CAUTION**

**MAKE SURE THAT YOU DEFREEZE THE PRE-PREG FABRIC AT AMBIENT TEMPERATURE FOR 24 h MINIMUM.**

**CAUTION**

**FOR STRUCTURAL ADHESIVE FILM, THE AUTHORIZED SHOP LIFE IS 20 DAYS FOR AF163 TYPE AT 23 °C (73.4 °F) AND 30 % RH.**

**FOR PRE-PREG FABRIC, THE APPROVED SHOP LIFE IS 30 DAYS WORKLIFE. IT INCLUDES 15 DAYS STACK LIFE AT NORMAL WORK CONDITION OF MAX. 24 °C (75.2 °F) AND MAX. 60 % RH.**

**CAUTION**

**THE DAMAGE LIMIT IS 200 mm (7.87 in) AWAY FROM THE MONOLITHIC AREAS (ZONE C OR D).**

### Job Set-up

#### 1.1.1 Preparation

1.1.1.1 Prepare a Local reversed molding. The dimensions of the Local reversed molding must be larger than the dimensions of the Heat blanket.

1.1.1.2 Put the radome on the Radome support.

1.1.1.3 If necessary, remove the metallic parts of damage area:

- Removal of lightning arrestors and studs. (RADOME-A-53-10-11-02001-500B-C RADOME (Lightning Arrestors) – Disconnect, remove and disassemble procedures)
- Removal of lightning blade. (RADOME-A-53-10-11-03001-500B-C RADOME (Lightning Blade) – Disconnect, remove and disassemble procedures)
- Removal of brackets. (RADOME-A-53-10-11-06001-500B-C RADOME (Brackets) – Disconnect, remove and disassemble procedures)
- Removal of equipped fittings with latches. (RADOME-A-53-10-11-04001-500B-C RADOME (Equipped Fittings) – Disconnect, remove and disassemble procedures)

1.1.1.4 Remove the paint with a mechanical stripping method. (RADOME-A-53-10-11-02001-663B-C RADOME – Standard repair procedure (Mechanical Stripping of Paint))

1.1.1.5 Prepare a Local reversed molding.

### 1.2 Procedure

(Figure 1 Radome - Marking out of Damaged Area, Removal of Layers and Honeycomb)

(Figure 2 Radome - Repair by Outside on a One-Phase Process (Heating Blanket))

(Figure 3 Radome - Installation of the Heating Element and the Vacuum Molding Device)

(Figure 4 Radome - Resin Injection Into the Vent-Hole)

### 1.2.1 Removal of Outer Layers and Honeycomb

1.2.1.1 Make a circular mark (φx) around the damaged area with a Marker pencil. Refer to Figure (Figure 1 Radome - Marking out of Damaged Area, Removal of Layers and Honeycomb).

1.2.1.2 If the repair steps go across the insert area, increase the repair area to include insert area.

1.2.1.3

**CAUTION**

**WHEN CUTTING OUT THE OUTSIDE LAYER, DO NOT CUT THE UNDERLYING LAYERS OR THE UNDAMAGED SKIN AT THE PERIPHERY.**

**CAUTION**

**DO NOT CUT THE CORE OF THE UNDERLYING HONEYCOMB OR THE UNDAMAGED LAYERS AT THE PERIPHERY WHEN CUTTING OUT THE INSIDE LAYER.**

Cut out and remove each layer of the outer skin with a Cutter or Sharped spatula.

1.2.1.3.1 Cut the inner layer to a dimension more than the periphery of the damaged area in relation to the number of plies that overlaps.

1.2.1.3.2 Cut the inside layers to have the shape of steps around the perimeter of the damaged area.

1.2.1.3.3 Cut the steps making overlaps of 15 ±3 mm (0.59 ±0.11 in).

1.2.1.4

**CAUTION**

**THE HONEYCOMB MUST BE CUT OUT PERPENDICULARLY TO THE HONEYCOMB CORE. DO NOT CUT THE INNER SKIN LAYER WHEN THE HONEYCOMB IS CUT.**

Carefully cut out the damaged honeycomb at the same size as the last outer layer removed.

1.2.1.5 Remove the cut out honeycomb.

1.2.1.6 Cut out and remove each layers of the outer skin.

### 1.2.2 Moisture Removal

**Note**

Do this step to remove all traces of humidity.

1.2.2.1 Put the radome in an Oven or use the Heat blanket (Refer to SRM 51-77-11 - Air intake flow).

1.2.2.2

**CAUTION**

**A TEMPERATURE MORE THAN +60 °C (140 °F) CAN CAUSE DAMAGE.**

Set and keep the temperature to 60 °C (140 °F) for 12 h minimum.

1.2.2.3 Let the temperature of the radome decrease until it is the same as the ambient temperature.

1.2.2.4 Remove the radome from the Oven or remove the Heat blanket.

1.2.3

**CAUTION**

**BE CAREFUL NOT TO CAUSE DAMAGE WHEN YOU DO THIS OPERATION.**

## Preparation of Repair Area

1.2.3.1 Drill a vent hole to a Dia. 4 mm (0.16 in) at the center of damaged area from inner side to outer side.

1.2.3.2 Lightly rub the damage area with Abrasive paper (P80 or 80) to get chamfers.

1.2.3.3 Remove all particles (caused by the rubbing operation) with a Vacuum cleaner.

1.2.3.4 Clean and remove the grease from the work area with a clean Lint-free cloth and Isopropylic alcohol.

1.2.3.5 Let the work area dry before you continue work on the repair area.

1.2.3.6 Prepare the surface before bonding. (RADOME-A-53-10-11-01001-663B-C RADOME – Standard repair procedure (Prepare the surface before bonding))

1.2.4

**CAUTION**

**USE THE CORRECT HEXAGONAL HONEYCOMB:**

N/A **- HONEYCOMB (HEXA = 7.8MM, 72KG/M3) FOR LATERAL ZONE (ZONE A)**

N/A **- HONEYCOMB (HEXA = 7.8MM, 144KG/M3) FOR CONE ZONE (ZONE A)**

N/A **- HONEYCOMB (HEXA = 25MM, 96KG/M3) FOR THICK ZONE (ZONE B)**

**- ALTERNATIVE HONEYCOMB (FLEXCORE 7.8MM, 80 KG/M3) FOR LATERAL AND CONE ZONES (ZONE A).**

## Preparation of Repair Layers and Honeycomb Replacement Parts

**Note**

The cone zone is the area inside diameter 490 mm (19.29 in) around the front of radome, or up to X = 60 mm (2.36 in).

N/A 1.2.4.1 If you use Honeycomb (Hexa=7.8mm, 144kg/m3) for cone repair, do the thermal moulding treatment that follows:

**Note**

This procedure is related to areas with groups of defects.

1.2.4.1.1 Cut out a part from the Honeycomb (Hexa=7.8mm, 144kg/m3) as the same dimension of the repair.

1.2.4.1.2 Put the Honeycomb (Hexa=7.8mm, 144kg/m3) in a form with a radius of curvature equal to 500 mm (19.68 in).

1.2.4.1.3 Install the vacuum molding device and set the vacuum level at 0.10 bar (2.95 inHg(32F)) maximum.

1.2.4.1.4 Install it in an Oven.

1.2.4.1.5 Increase the temperature from ambient temperature to 170 ±10 °C (338 ±18 °F) in increments of 3 ±1 °C/min (5.4 ±1.8 °F/min).

1.2.4.1.6 Then, keep the temperature stable at 170 ±10 °C (338 ±18 °F) for 2 h ±10 min and with vacuum level at 0.90 ±0.5 bar (26.6 ±15 inHg(32F)).

1.2.4.1.7 After 2 h, let the temperature decrease to 30 ±10 °C (86 ±18 °F).

1.2.4.1.8 Remove the vacuum, end of cycle.

1.2.4.2 Prepare the honeycomb replacement part:

1.2.4.2.1 Cut out a piece of the honeycomb with a diameter larger by one cell than the hole diameter.

1.2.4.3

**CAUTION**

**MAKE SURE THAT THE LIFE TIME OF THE LAYERS IS NOT EXPIRED.**

TAM - 46846 LEANDRO 184815 NOV 0 1 2017

Prepare the repair layers:

1.2.4.3.1 Cut the layers of Structural adhesive and the Pre-preg fabric as shown in the figure (Figure 2 Radome - Repair by Outside on a One-Phase Process (Heating Blanket))

- Surface layer: A layer of Structural adhesive or Surface adhesive
- Bond of honeycomb: two layers of Structural adhesive
- Skin layers outer skins: three layers of Pre-preg fabric.

1.2.5

**CAUTION**

**THE HEATING ELEMENT DIAMETER MUST BE 100 mm (3.94 in) WIDER THAN THE REPAIR DIAMETER.**

**CAUTION**

**CURING SHALL BE MONITORED WITH THERMOCOUPLES. REFER TO THE SRM 51-77-11 FOR INSTALLATION.**

## Installation of the Heating Element and the Vacuum Molding Device on the Inner Side of the Radome (Heat Blanket)

1.2.5.1 Put the first heating element on the inner side of radome:

TAM - 46846 LEANDRO 184815 NOV 0 1 2017

**Note**

The heating diameter must be larger by 100 mm (3.94 in) than the repair diameter.

1.2.5.1.1 Put the Peel ply F with a diameter that is equal to the repair diameter increased of 50 mm (1.97 in).

1.2.5.1.2 Put the Perforated release film with its Dia. > repair Dia.

1.2.5.1.3 Put the two Draining fabric with their Dia. > Perforated release film Dia.

1.2.5.1.4 Put the Non perforated release film with its Dia. > Draining fabric Dia.

1.2.5.1.5 Wind the Fabric around the Heat blanket. Then install the Heat blanket.

TAM - 46846 LEANDRO 184815 NOV 0 1 2017

1.2.5.1.6 Put the four Breather fabric.

1.2.5.2 **CAUTION**

**MAKE SURE THAT NO AIR CAN GO INTO THE VACUUM CIRCUIT.**

Install the vacuum molding device:

1.2.5.2.1 Apply Vaccum bag sealant around the repair area.

1.2.5.2.2 Install the Vacuum film over the repair and connect the Vacuum tube.

**1.2.6 Phase of the Repair**

(Figure 2 Radome - Repair by Outside on a One-Phase Process (Heating Blanket))

1.2.6.1 Install a layer of Structural adhesive on inner skin.

1.2.6.2 Drill a hole to a Dia. 4 mm (0.16 in) on installed Structural adhesive through the vent hole made before.

1.2.6.3 Carefully install the honeycomb replacement part. As far as possible, align the new and the existing cells.

1.2.6.4 Install a layer of Structural adhesive.

1.2.6.5 Carefully put the three layers of repair Pre-preg fabric on the Structural adhesive.

1.2.6.6 Install a surface layer of Structural adhesive or Surface adhesive on the Pre-preg fabric.

**1.2.7 CAUTION**

**THE HEATING ELEMENT DIAMETER MUST BE 100 mm (3.94 in) WIDER THAN THE REPAIR DIAMETER.**

**CAUTION**

**INSTALL THE HEATING ELEMENT AND THE VACUUM MOLDING DEVICE ON THE MOLD TO GET THE REQUIRED TEMPERATURE DURING THE CURING.**

**Installation of the second Heating Element And the Vacuum Molding Device on the Outer side of the Radome (Heat Blanket)**

(Figure 3 Radome - Installation of the Heating Element and the Vacuum Molding Device)

1.2.7.1 Install the second heating element on the outer side of radome:

1.2.7.1.1 Put the Peel ply F (dia > dia reverse moulding).

1.2.7.1.2 Put the reverse moulding in position.

1.2.7.1.3 Wind the Fabric around the Heat blanket. Then install the Heat blanket.

1.2.7.1.4 Put the four Breather fabric.

**CAUTION**

**MAKE SURE THAT NO AIR CAN GO INTO THE VACUUM CIRCUIT.**

**CAUTION**

**INSTALL A VACUUM MOLDING DEVICE ON AN AREA GREATER THAN NECESSARY TO MAKE SURE THAT YOU CAN REMOVE THE AIR BUBBLES WITH A RUBBER SPATULA ALONG THE COMPLETE REPAIR SURFACE.**

Install the vacuum molding device

1.2.7.2.1 Apply Vaccum bag sealant around the repair area.

1.2.7.2.2 Install the Vacuum film over the repair and connect the Vacuum tube.

1.2.7.2.4 Complete the Vacuum System installation and make sure that the circuit is airtight.

1.2.7.3 Do the curing. (RADOME-A-53-10-11-08001-664B-C RADOME – Special repair procedure (Curing Process))

## 1.2.8 Resin Injection Into the Vent-Hole

(Figure 4 Radome - Resin Injection Into the Vent-Hole)

1.2.8.1 Drill again dia. 4 mm (0.16 in) vent-hole on inner skin.

1.2.8.2 Carefully clean the drilled hole.

1.2.8.3 Prepare the epoxy resin (Five parts of Resin + four parts of Hardener.

1.2.8.4 Put the epoxy resin into the dia. 4 mm (0.16 in) vent-hole with a Syringe until the resin overflows.

**Note**

To make resin flow easier, do not put a needle in the Syringe.

1.2.8.5 Install the Glass fiber fabric to a dia. 20 ±5 mm (0.787 ±0.20 in).

1.2.8.6 Put the Peel ply F to a dia. 70 ±5 mm (2.755 ±0.20 in).

1.2.8.7

**CAUTION**

**INSTALL A VACUUM MOLDING DEVICE ON AN AREA GREATER THAN NECESSARY TO MAKE SURE THAT YOU CAN REMOVE THE AIR BUBBLES WITH A RUBBER SPATULA ALONG THE COMPLETE REPAIR SURFACE.**

Install the vacuum molding device:

1.2.8.7.1 Apply Vaccum bag sealant around the repair area.

1.2.8.7.2 Cut to the dimension and install the Vacuum film along the draining fabrics.

1.2.8.7.3 Complete the Vacuum System.

1.2.8.7.4 Make sure that the circuit is airtight.

1.2.8.7.5 Set the vacuum level on the vacuum gauge to 0.8 bar (23.6 inHg(32F)) minimum.

TAM - 46846 LEANDRO 184815 NOV.02,2017

1.2.8.7.5.1 Let cure the resin at ambient temperature during 24 h or at 60 °C (140 °F) maximum during 60 min using heating element.

TAM - 46846 LEANDRO 184815 NOV.02,2017

1.2.8.7.5.2 Disconnect then remove the vacuum molding device.

1.2.8.7.5.3 Remove the Peel ply F.

TAM - 46846 LEANDRO 184815 NOV.02,2017

### 1.2.9 Finish Phase

TAM - 46846 LEANDRO 184815 NOV.02,2017

1.2.9.1 Remove the radome from the Mold and install on Radome support.

1.2.9.2 Do the post repair inspection (RADOME-A-53-10-11-04001-300B-C RADOME – Examinations, tests and checks (Post Repair Inspection)).

TAM - 46846 LEANDRO 184815 NOV.02,2017

1.2.9.3 **CAUTION**

**DO NOT DAMAGE THE UPPER LAYER.**

TAM - 46846 LEANDRO 184815 NOV.02,2017

#### Cleaning

1.2.9.3.1 Carefully rub down the edges of the repaired area with Abrasive paper (P150 or 150), then Abrasive paper (P240 or 240).

TAM - 46846 LEANDRO 184815 NOV.02,2017

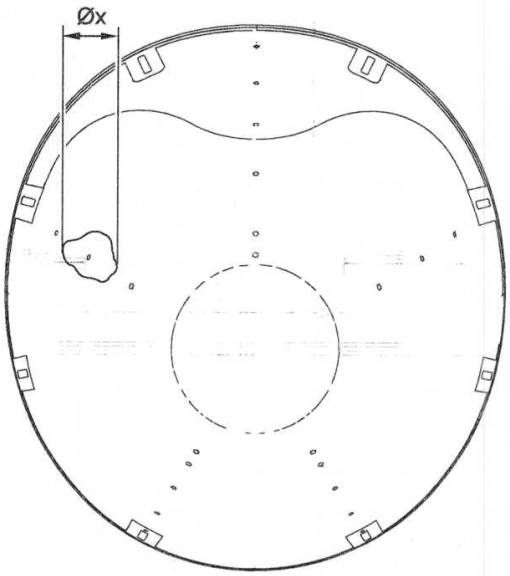
1.2.9.3.2 Remove all dust caused by rubbing down with a vacuum cleaner.

1.2.9.3.3 Make the Lint-free cloth moist with Isopropylic alcohol.

TAM - 46846 LEANDRO 184815 NOV.02,2017

1.2.9.3.4 Clean the surface of the radome the moist Lint-free cloth.

1.2.9.3.5 Let the Isopropylic alcohol dry before you continue the task.



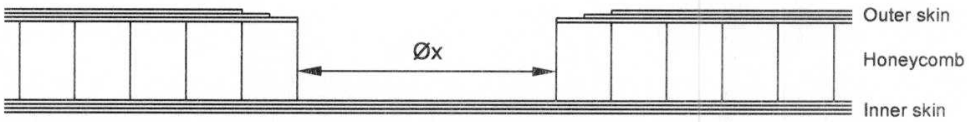




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Figure 1 Radome - Marking out of Damaged Area, Removal of Layers and Honeycomb

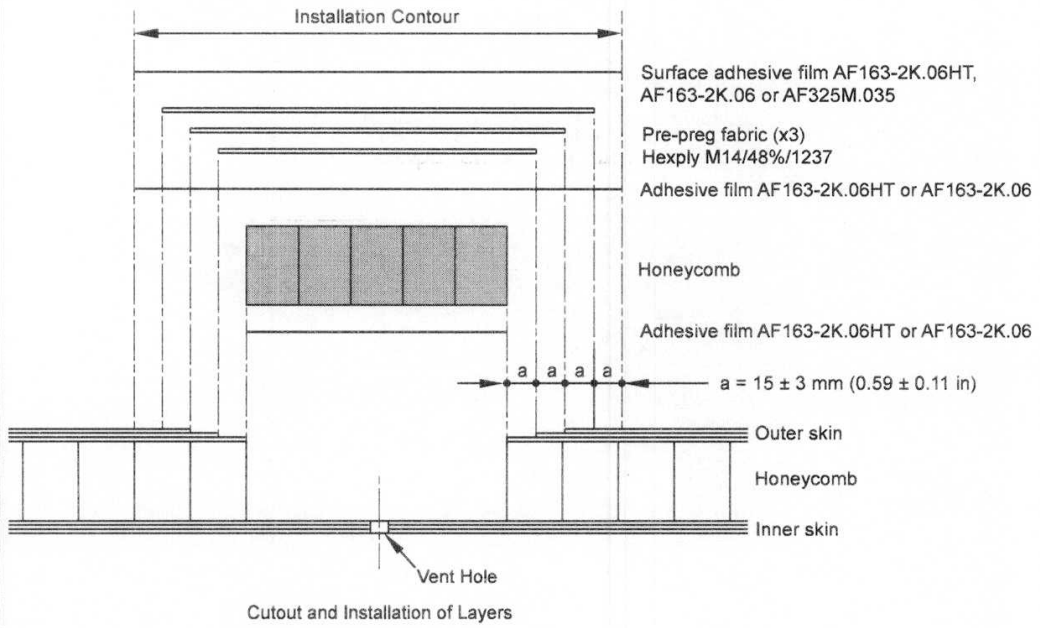


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Figure 2 Radome - Repair by Outside on a One-Phase Process (Heating Blanket)

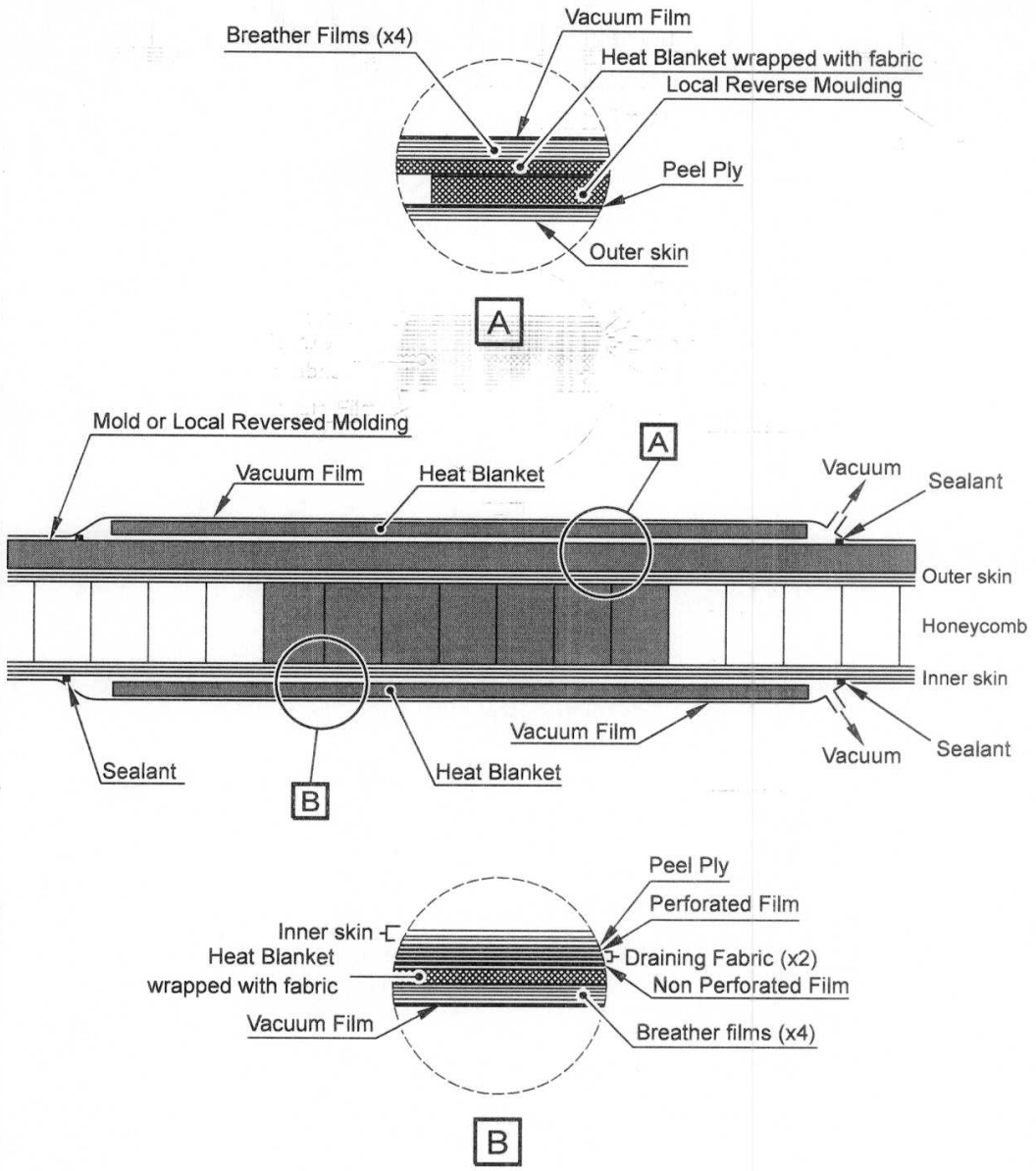


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Figure 3 Radome - Installation of the Heating Element and the Vacuum Molding Device

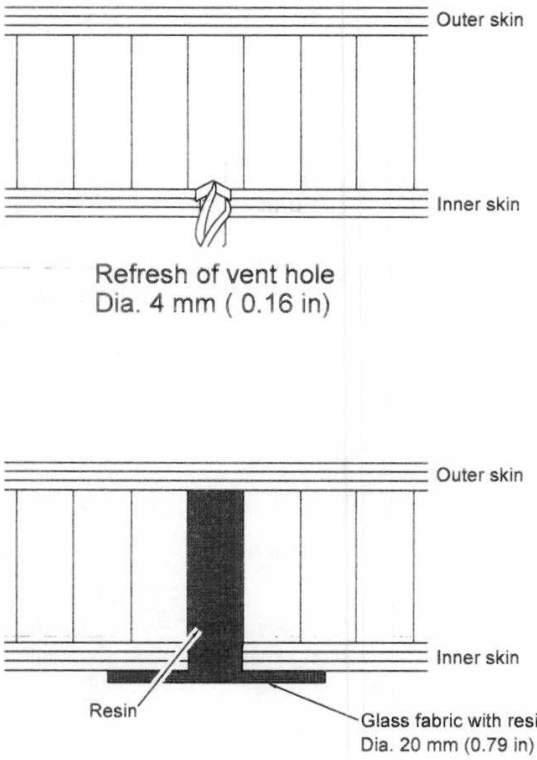


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Figure 4 Radome - Resin Injection Into the Vent-Hole

## *Close up procedures*

## Required condition

*Required condition – Close-up requirements*

| Required condition | Data module / Publication identifier |
|---|---|
| Install the new insert related to the repaired area. | RADOME-A-53-10-11-13001-664B-C RADOME – Special repair procedure (Replacement of lightning arrestor insert) |
| Install the equipped fitting, if necessary. | RADOME-A-53-10-11-04001-700B-C RADOME (Equipped Fitting ) – Assemble, install and connect procedures |
| Install the brackets, if necessary. | RADOME-A-53-10-11-06001-700B-C RADOME (Brackets) – Assemble, install and connect procedures |
| Install the lightning blade, if necessary. | RADOME-A-53-10-11-03001-700B-C RADOME (Lightning Blade) – Assemble, install and connect procedures |
| Install the lightning arrestors and studs, if necessary. | RADOME-A-53-10-11-02001-700B-C RADOME (Lightning Arrestors) – Assemble, install and connect procedures |
| Do a varnish application. | RADOME-A-53-10-11-11001-664B-C RADOME – Special repair procedure (Application of sealing varnish inside Radome) |
| Do a paint application and do a check the paint thickness. | RADOME-A-53-10-11-09001-664B-C RADOME – Special repair procedure (Application of Paint) |
| Do the electrical bonding check, if necessary. | RADOME-A-53-10-11-03001-300B-C RADOME – Examinations, tests and checks (Electrical bonding check) |
| Do a continuity check | RADOME-A-53-10-11-01001-365B-C RADOME – Continuity Check (with antistatic paint tester) |
| or | RADOME-A-53-10-11-02001-365B-C RADOME – Continuity Check (with Megohmmeter) |
| Do a resistance check | RADOME-A-53-10-11-01001-366B-C RADOME – Resistance Check (with antistatic paint tester) |
| Or | RADOME-A-53-10-11-02001-366B-C RADOME – Resistance Check (with Megohmmeter) |

**End of Data Module: RADOME-A-53-10-11-05001-664B-C**

# Special repair procedure

DMC: RADOME-A-53-10-11-08001-664B-C (2017-06-26)

## 1 RADOME – Special repair procedure (Curing Process)

**Job description**
This procedure gives the instructions of the curing process when you do the structural repairs.
Use one of the 2 methods related to the available means:

- Curing with heat blanket
- Curing with autoclave.

## *Preliminary requirements*

### Support equipment

*Support equipment*

| Nomenclature | Identification no. | | Qty |
|---|---|---|---|
| Hot bonding | Tool: | No specific | 1 |
| Vacuum system | Tool: | No specific | 1 |
| Autoclave | Tool: | No specific | 1 |
| Radome support | Tool: | No specific | 1 |
| Mold | Tool: | No specific | 1 |
| Local reversed molding | Tool: | No specific | 1 |

## *Procedure*

### 1.1 Job Set-up
Not applicable

### 1.2 Procedure

#### 1.2.1 Curing With Heat Blanket

1.2.1.1 Connect the temperature control system of the Hot bonding and Vacuum system to the vacuum molding device.

1.2.1.2 Apply the vacuum level of 0.8 bar (24 inch of Hg) in the vacuum molding device.

1.2.1.3 Obey this curing cycle:

1.2.1.3.1 Increase the temperature from ambient temperature to 95 ±3 deg.C (203 ±5.4 deg.F) in increments of 3±1 deg.C (37.4 ± 1.8 deg.F) per minute.

1.2.1.3.2 Keep a stable temperature at 95 ±3 deg.C (203 ±5.4 deg.F) for 6 hours (0/+30 minutes).

TAM - 10582 JULIO 116827 NOV.02,2017

1.2.1.3.3 After 6 hours (0/+30 minutes), let the temperature decrease to 30±10 deg.C (86 ±18 deg.F).

1.2.1.4 Disconnect the Hot bonding and Vacuum system to the vacuum molding device.



1.2.1.5 Remove the vacuum molding device and the heating element installed on the inner side of the radome.



## 1.2.2 Curing With Autoclave

N/A 1.2.2.1 Curing Cycle at 120 deg.C (248 deg.F) for 2 hours or at 95 deg.C (203 deg.F) for 6 hours

**Note**

When curing, make sure that the vacuum bag contains all the radome shell and it is tightened on the mold structure edge.

N/A 1.2.2.1.1 Obey this curing cycle (120 deg.C (248 deg.F)):

N/A 1.2.2.1.1.1 Apply the vacuum level of 0.15 ±0.05 bar (4.4 ±1.5 inch of Hg) in the vacuum molding device.

N/A 1.2.2.1.1.2 After 5 min minimum, apply the Autoclave pressure from 0 to 1.6 -0/+0.2 bar (47.2 -0/+5.9 inch of Hg) in increments of 0.5 -0/+0.5 bar (15 -0/+15 inch of Hg) per minute.

N/A 1.2.2.1.1.3 After 5 -0/+5 min, increase the Autoclave temperature from ambient temperature to 80 ±5 deg.C (176 ±9 deg.F) in increments of 3 ±1 deg.C (37.4 ±1.8 deg.F) per minute. At 60° deg.C (140 deg.F).

N/A 1.2.2.1.1.4 Keep a stable temperature at 80 ±5 deg.C (176 ±9 deg.F) for 30 ±5 minutes.

N/A 1.2.2.1.1.5 Increase the temperature from 80 ±5 deg.C (176 ±9 deg.F) to 120 deg.C (248 deg.F) (0 deg.C, +5 deg.C (32 deg.F, +9 deg.F)) in increments of 3 ±1 deg.C (37.4 ±1.8 deg.F) per minute.

N/A 1.2.2.1.1.6 Keep a stable temperature at 120 deg.C (248 deg.F) (0 deg.C, +5 deg.C (32 deg.F, +9deg.F)) for 2 hours (0, +30 minutes).

N/A 1.2.2.1.1.7 Decrease the temperature from 120 deg.C (248 deg.F) (0 deg.C, +5 deg.C (32 deg.F, +9deg.F)) to 65 ±5 deg.C (149 ±9 deg.F), in increments of 0.5 ±0.2 deg.C (33 ±0.36 deg.F) per minutes.

N/A 1.2.2.1.1.8 Remove the autoclave pressure (from 1.6 -0/+0.2 bars (47.2 -0/+5.9 inch of Hg) to 0 bar (0 inch of Hg), decreasing 0.5 -0/+0.5 bar (15 -0/+15 inch of Hg) per minute.

N/A 1.2.2.1.1.9 Let the temperature decrease to 30 ±10 deg.C (86 ±18 deg.F).

N/A 1.2.2.1.2 Obey this curing cycle (95 deg.C (203 deg.F)):

N/A 1.2.2.1.2.1 Apply the vacuum level of 0.15 ±0.05 bar (4.4 ±1.5 inch of Hg) in the vacuum molding device.

N/A 1.2.2.1.2.2 After 5 min minimum, apply the Autoclave pressure from 0 to 1.6 -0/+0.2 bar (47.2 -0/+5.9 inch of Hg) in increments of 0.5 -0/+0.5 bar (15 -0/+15 inch of Hg) per minute.

N/A 1.2.2.1.2.3 After 5 -0/+5 min, increase the Autoclave temperature from ambient temperature to 95 deg.C (203 deg.F) in increments of 3 ±1 deg.C (37.4 ±1.8 deg.F) per minute.

N/A 1.2.2.1.2.4 Keep a stable temperature at 95±5 deg.C (203 ±9 deg.F) for 360 0/+30 minutes.

N/A 1.2.2.1.2.5 After 35 minutes, remove the vacuum in the vacuum molding device.

N/A 1.2.2.1.2.6 After 6h, decrease the temperature from 95±5 deg.C (203 ±9 deg.F) to ambient temperature in increments of 3 ±1 deg.C (37.4 ±1.8 deg.F) per minute.

1.2.2.1.2.7 At 70 deg.C (158 deg.F), remove the autoclave pressure (from 1.2 -0/+0.2 bars (35.4 -0/+5.9 inch of Hg) to 0 bar (0 inch of Hg), decreasing 0.5 -0/+0.5 bar (15 -0/+15 inch of Hg) per minute.

1.2.2.1.2.8 Let the temperature decrease to 30 ±10 deg.C (86 ±18 deg.F).

### 1.2.3 Finish phase

1.2.3.1 Remove the radome from the Mold or Local reversed molding and install on Radome support.

1.2.3.2 Continue the related repair.

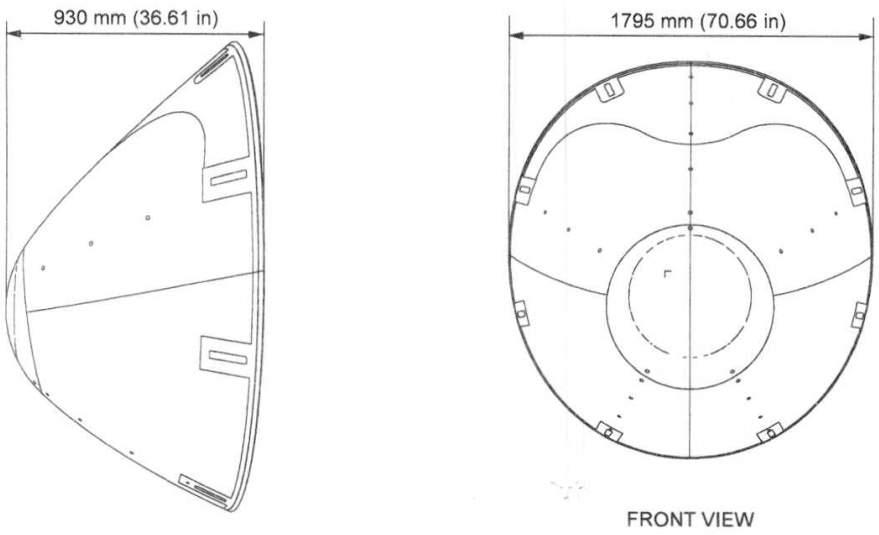
## *Close up procedures*

### Required condition

*Required condition – Close-up requirements*

| Required condition | Data module / Publication identifier |
|---|---|
| For the installation of the metallic parts and lightning arrestors (Refer to Assembly procedure). | n/a |

**End of Data Module: RADOME-A-53-10-11-08001-664B-C**




ICN-RADOME-A-531011-A-F6198-00509-A-001-01

Figure 1 Radome - Overall dimensions

**End of Data Module: RADOME-A-53-10-11-01001-030B-C**

LATAM

**WORKSHOPS**
**STRUCTURAL DAMAGE REPAIR REPORT**

**OS/Bar Code:** T00C$C6L

**Identification Tag:** —

## 1. GENERAL INFORMATION:

| | | |
|---|---|---|
| PART DESCRIPTION: NOSE RADOME | | CSI: ☐ Yes ☒ No |
| MANUFACTURER: AIRBUS | POSITION: ONLY | |
| P/N: V53132010000 | S/N: RADV0042 | |

## 2. DAMAGE TYPE, IDENTIFICATION, LOCATION AND DIMENSIONS:

IDENTIFICATION OF THE AFFECTED PART: ☐ SRM ☐ CMM ☐ IPC

ATA: 53 - 10 - 11 CONFIG: — FIGURE: — SHEET: — ITEM: — REVISION: Nº003 JUN 26/17

| | | | | | |
|---|---|---|---|---|---|
| ☐ DENT | ☐ WEAR | ☐ NICK | ☐ CRACK | ☒ DISBONDING | ☐ DELAMINATION |
| ☐ LIGHTNING STRIKE | ☐ EROSION | ☐ GOUGE | ☐ SCRATCH | ☐ OIL CANNING | ☐ PUNCTURE |
| ☐ CORROSION ☐ Type Pitting ☐ Type Exfoliation CPCP LEVEL: ☐ 1 ☐ 2 ☐ 3 ☐ OTHER TYPE (specify): | | | | ☐ OTHER DAMAGE(specify): | |

LOCATION (Example :Frame / RIB / Skin / LH/RH / Spar / Inner or outer / Station / Distance to internal element):

OUTER SKIN

| Perform the Detailed Visual Inspection at damaged area and on adjacent structures/areas in order to find additional and hidden damages. | PERFORMED BY | INSPECTED BY |
|---|---|---|
| ☒ No additional damages have been found.<br>☐ Additional damages have been found besides the one found initially.<br>Additional Damage: | TAM - 46846<br>LEANDRO<br>184815<br>Date: OCT. 31,2017 | N/A<br>Date: |

## 3. INSPECTIONS:

| METHOD USED | MANUAL REFERENCE | RESULTS / NOTES | PERFORMED BY | INSPECTED BY |
|---|---|---|---|---|
| TAP TEST | 53-10-11 | DISBONDING | TAM - 46846<br>LEANDRO<br>184815<br>Date: OCT. 31,2017 | N/A<br>Date: |
| | | | Date: | Date: |
| | | | Date: | Date: |
| | | | Date: | Date: |

| DAMAGE FINAL DESCRIPTION AND DIMENSIONS (take pictures of damaged area): | PERFORMED BY | INSPECTED BY |
|---|---|---|
| DEBONDING 155 X 95 mm | TAM - 46846<br>LEANDRO<br>184815<br>Date: OCT. 31,2017 | TAM - 10582<br>JULIO<br>116827<br>Date: OCT. 31, 2017 |

LATAM

**WORKSHOPS**
**STRUCTURAL DAMAGE REPAIR REPORT**

**OS/Bar Code:** T00C$C6L

**Identification Tag:** —

| Based on previous inspections, Is the damaged part/component repairable as per an approved data? | EVALUATED BY | VALIDATED BY |
|---|---|---|
| ☒ Yes, the approved data must be recorded on the field FINAL REPAIR DESCRIPTION.<br>☐ No, the part must be forwarded to scrapping or an external OEM repair station. | TAM - 46846<br>LEANDRO<br>184815<br>Date: OCT. 31, 2017 | N/A<br>Date: |

**4. FINAL REPAIR DESCRIPTION:**

☐ NEGLIGIBLE DAMAGE // ☐ ALLOWABLE DAMAGE // ☐ CMM/SRM REPAIR // ☐ OTHER (specify): CMP

MANUAL APPROVAL REFERENCE:

☐ Aircraft **SRM** ATA: 53 - 10 - 11 REV.: Nº003 JUN 26/17

☐ **CMM** ATA: ____ - ____ - ____ REV.: ____

☐ **Vendor SRM** ATA: ____ - ____ - ____ REV.: ____

TASK: RADOME-A-53-10-11-05001-664B-C

TASK: ____

TASK: ____

TASK: ____

TASK: ____

TASK: ____

**ENGINEERING**

Mario

Engº Mario Sergio Braga
LATAM AIRLINES GROUP
CREA-SP: 0682526455

Date: Oct 31, 2017

IS THERE ANY DEVIATION OR ADDITIONAL WORK ON THE PERFORMED REPAIR? ☐ NO ☐ YES

Description: ____

Approval Reference: ____

**ENGINEERING**

Date:

**Make sure that repair area is free of tools, equipment and loose articles related to the repair accomplishment, prior to finish task.**

| PERFORMED BY | RELEASED / INSPECTED BY |
|---|---|
| TAM - 16130<br>ANTONIO<br>141088<br>Date: NOV.02,2017 | TAM - 10582<br>JULIO<br>116827<br>Date: NOV. 02 2017 |

ANNEXES:

☐ Grid Mapping Report Sheet (FTT-21-07-60) ☒ Pictures/Sketches ☐ Other (Specify): ____

☐ NDT Report Nºs: ____

REMARKS: No remarks

| PERFORMED BY: | RELEASED BY | IIO/CSI PERFORMED BY: |
|---|---|---|
| TAM - 16130<br>ANTONIO<br>141088<br>Date: NOV. 02, 2017 | TAM - 10582<br>JULIO<br>116827<br>Date: NOV. 07, 2017 | N/A<br>Date: |

| LATAM | WORKSHOPS<br>STRUCTURAL DAMAGE REPAIR REPORT | OS/Bar Code: 1000[illegible]<br>Identification Tag: — |
|---|---|---|

5. LIST OF REQUESTED MATERIALS:

| MATERIAL LIST REQUESTED TO REPAIR | | |
|---|---|---|
| PART NUMBER | BATCH | SERIE |
| M14-98-1237 | 000153[illegible]239 | N/A |
| AF-163-2K-06 | 7169[illegible]/0612 | N/A |
| HRT10-/F50-5D | JA.00064 | N/A |
| AW 106 | 000157[illegible]96 | N/A |
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Performed by

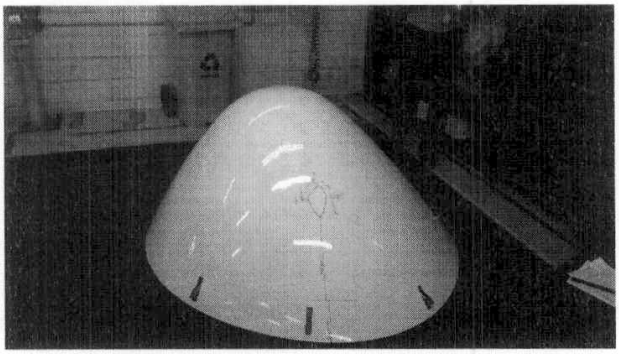
TAM - 10582
JULIO
116827

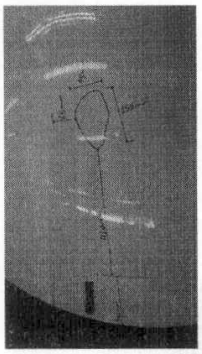
Date: NOV. 02, 2017

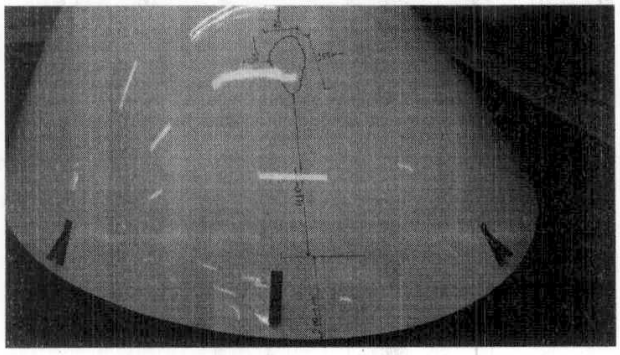
| LATAM | WORKSHOPS<br>STRUCTURAL DAMAGE REPAIR REPORT | OS/Bar Code: TOOC$CGL<br>Identification Tag: — |
|---|---|---|

**6. PHOTOS/IMAGES/SKETCHES:**

(If necessary, use the annex for pictures or sketches. Add additional pages as required. Write down the total amount of pages):







| Performed by |
|---|
| TAM - 46846<br>LEANDRO<br>184815<br>Date: OCT. 31.2017 |

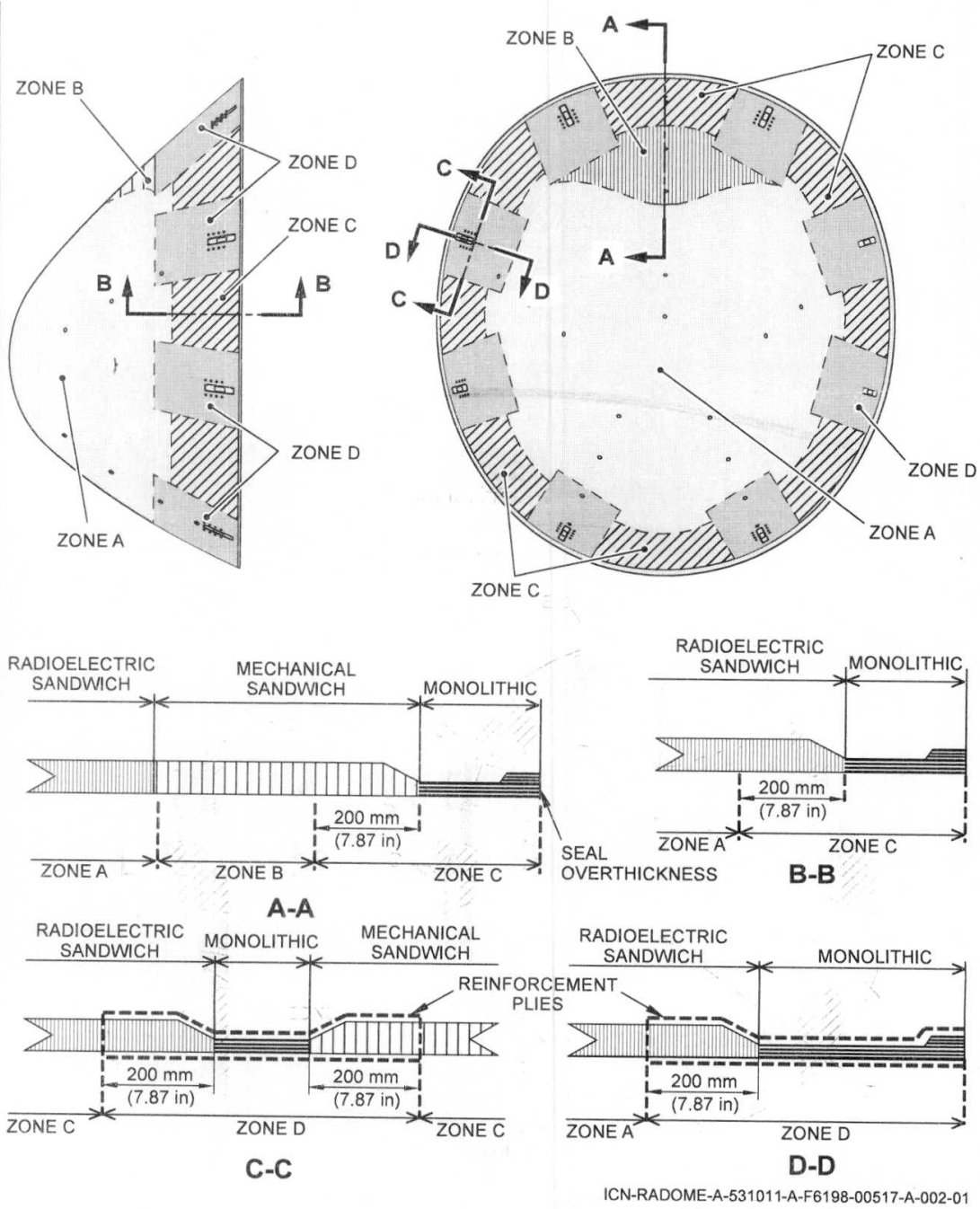



Figure 1 Radome - Zones A, B, C and D

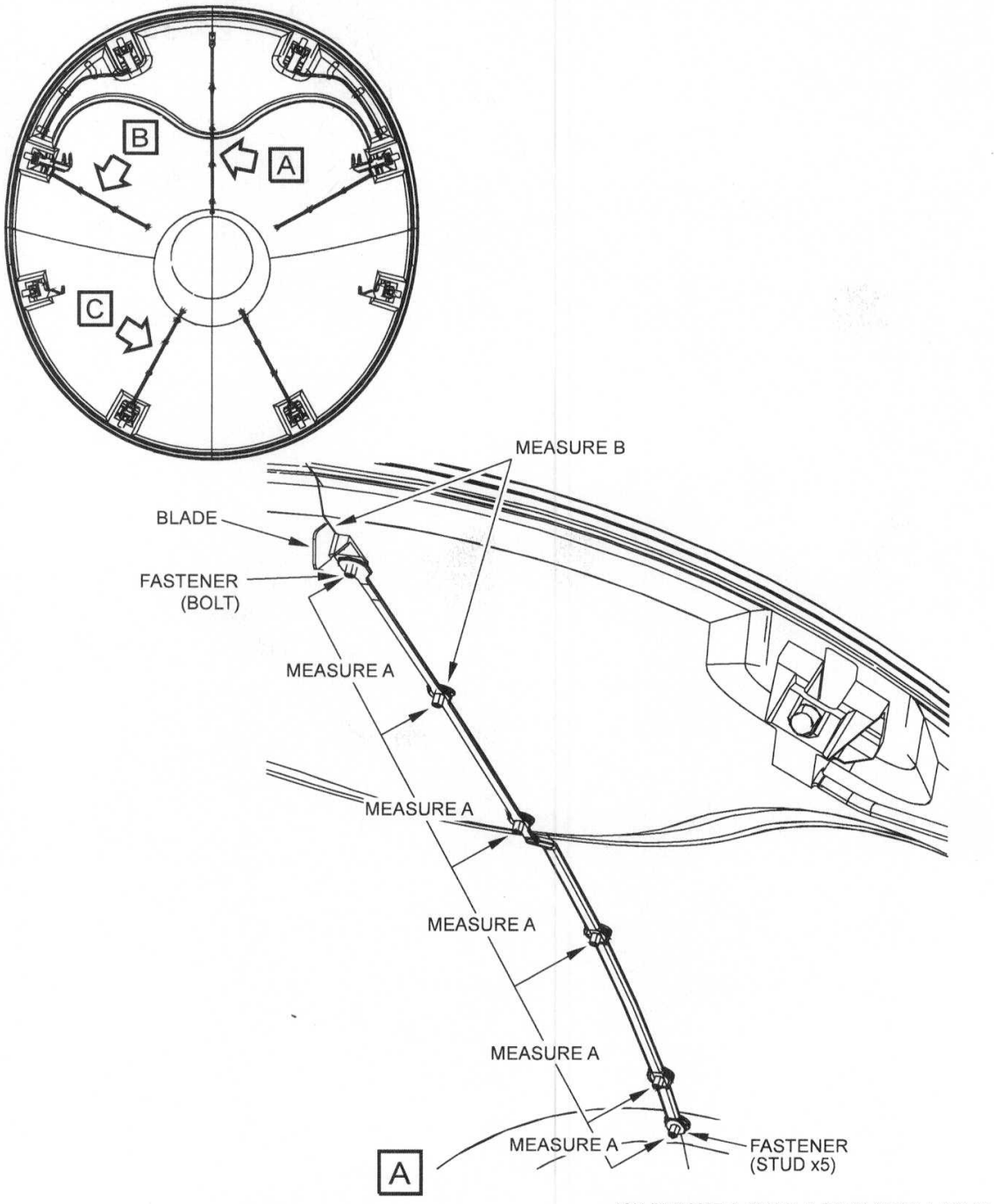
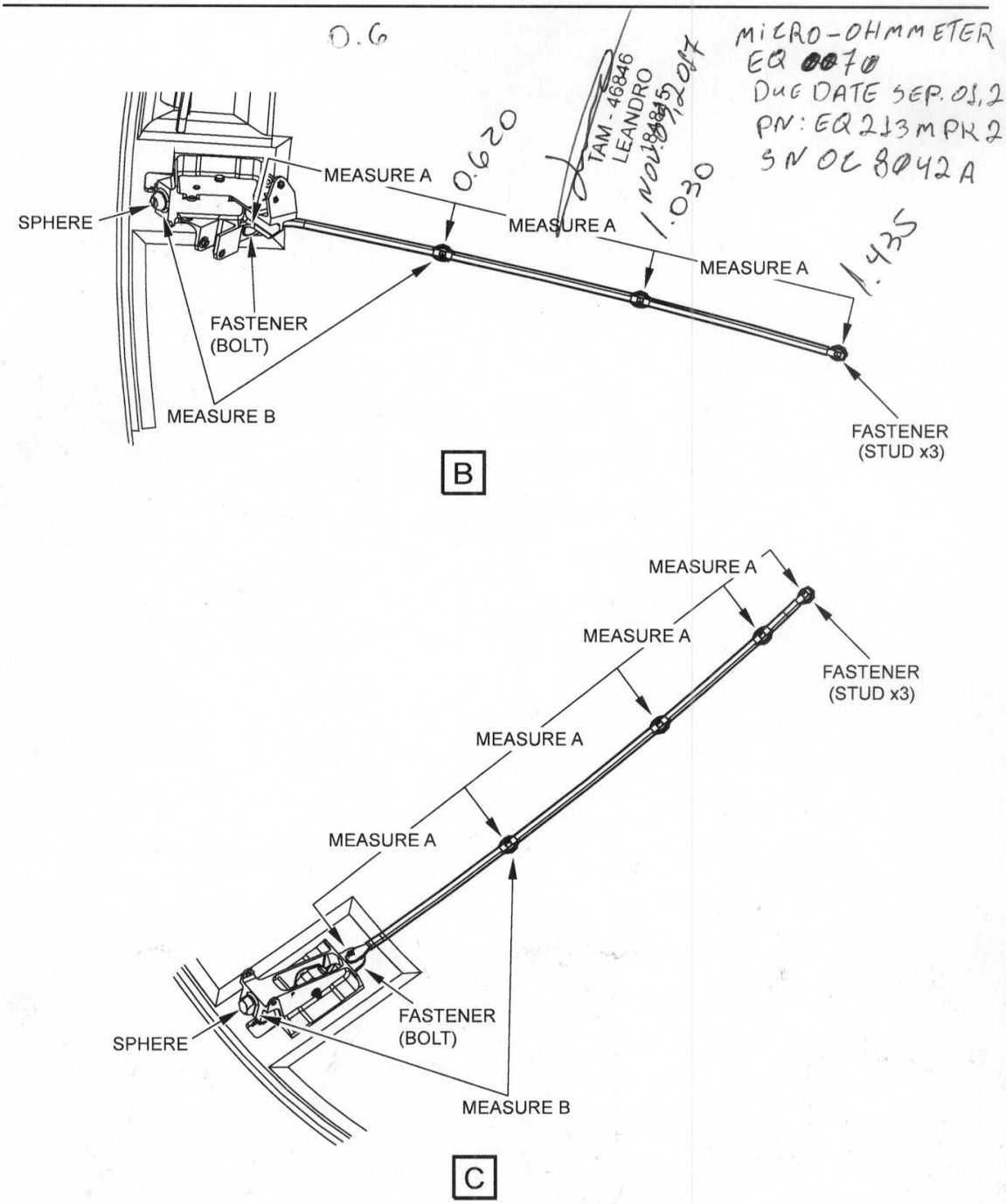



Figure 1 Radome - Electrical Bonding Check (Sheet 1 of 2)




ICN-RADOME-A-531011-A-F6198-00532-A-001-01

Figure 1 Radome - Electrical Bonding Check (Sheet 2 of 2)

**End of Data Module: RADOME-A-53-10-11-03001-300B-C**