



**GALAXY AEROSPACE (M) SDN. BHD. (1040262-D)**

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# **DEFECT REPORT**

## **LIGHTNING STRIKE ON AIRCRAFT**

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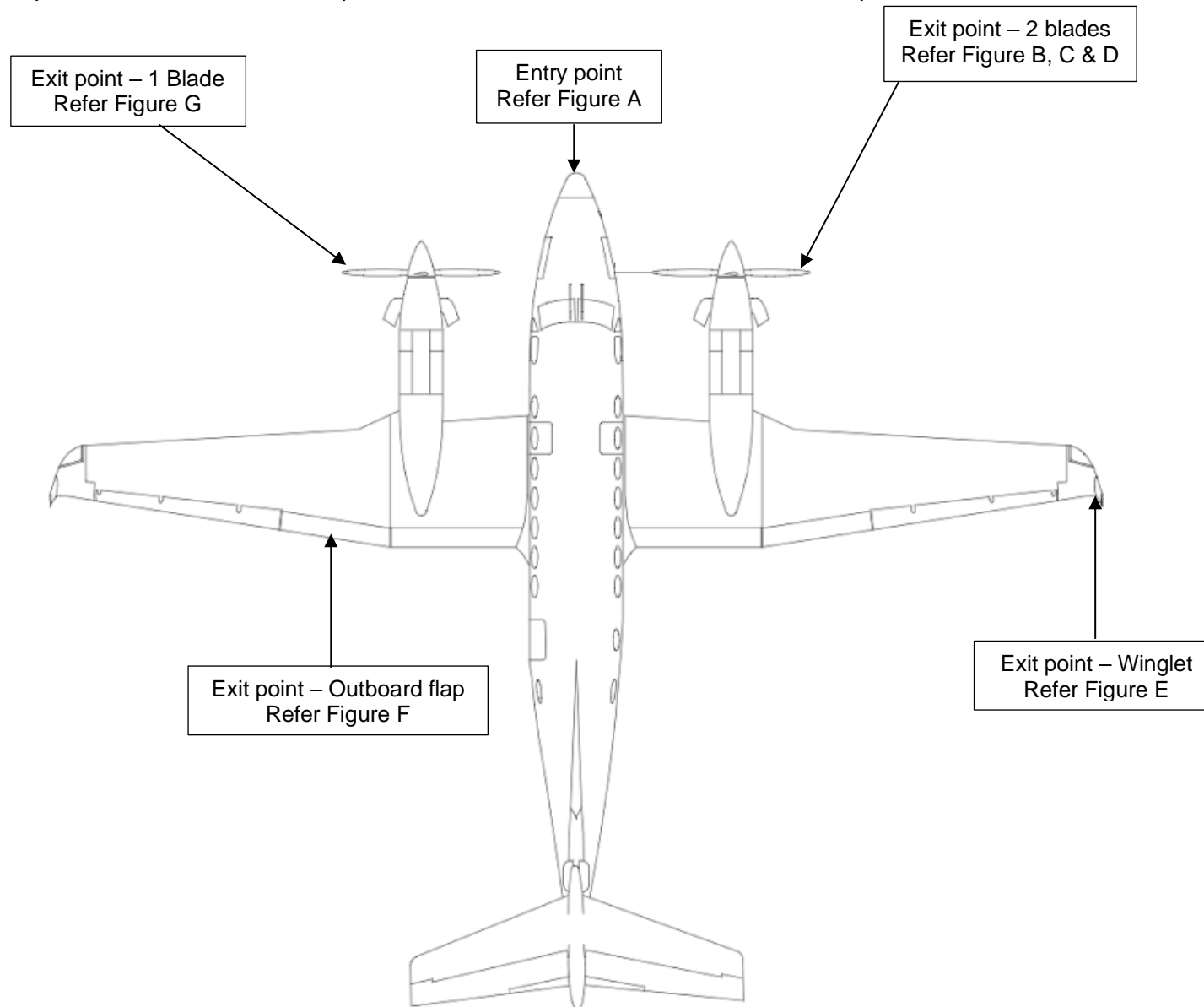
## 1.0 INTRODUCTION

|                                |  |
|--------------------------------|--|
| <b>Aircraft Type:</b>          | BEEHCRAFT B300 (SUPER KING AIR 350)  |
| <b>Aircraft Registration:</b>  | 9M-PTB   |
| <b>Aircraft Serial Number:</b> | FL-593   |
| <b>Hours:</b>                  | 5835:20  |
| <b>Landing:</b>                | 4388   |
| <b>Date:</b>                   | 11 <sup>th</sup> January 2023  |
| <b>Location:</b>               | PASUKAN GERAKAN UDARA HANGAR   |
| <b>Occurrence:</b>             | <p><b>LIGHTNING STRIKE ON AIRCRAFT:</b></p> <ol style="list-style-type: none"> <li>1. On January 11, 2023, at 15:33 hours, the pilot heard a loud bang and saw a lighting spark on the right propeller as the aircraft descended from FL 260 through FL 230, 15 NM from waypoint ADNUT.</li> <li>2. The airplane is on the taxiway Alpha WSMA to PGU apron for disposal. During the transition hover prior to landing for ground taxi, lightning struck the ground on the starboard side of the aircraft.</li> <li>3. GAM LAE performed a preliminary inspection to locate the aircraft's lightning strike entry and exit points. Upon inspection, found out the entry point was at the aircraft radome and the exit points found at several location included:             <ol style="list-style-type: none"> <li>i. 1 point LH propeller blade,</li> <li>ii. 2 points RH propeller blades,</li> <li>iii. LH outboard flap,</li> <li>iv. RH winglet.</li> </ol> </li> </ol> |

## 2.0 DESCRIPTION OF DAMAGE

### 2.1 LIGHTING STRIKE POINT OF ENTRY:

1. Based on the visual inspection, the aircraft was suspected to be struck on the nose radome. Refer picture below:



## 2.2 LIGHTNING STRIKE POINT OF EXIT: WINGLET AND OUTBOARD FLAP

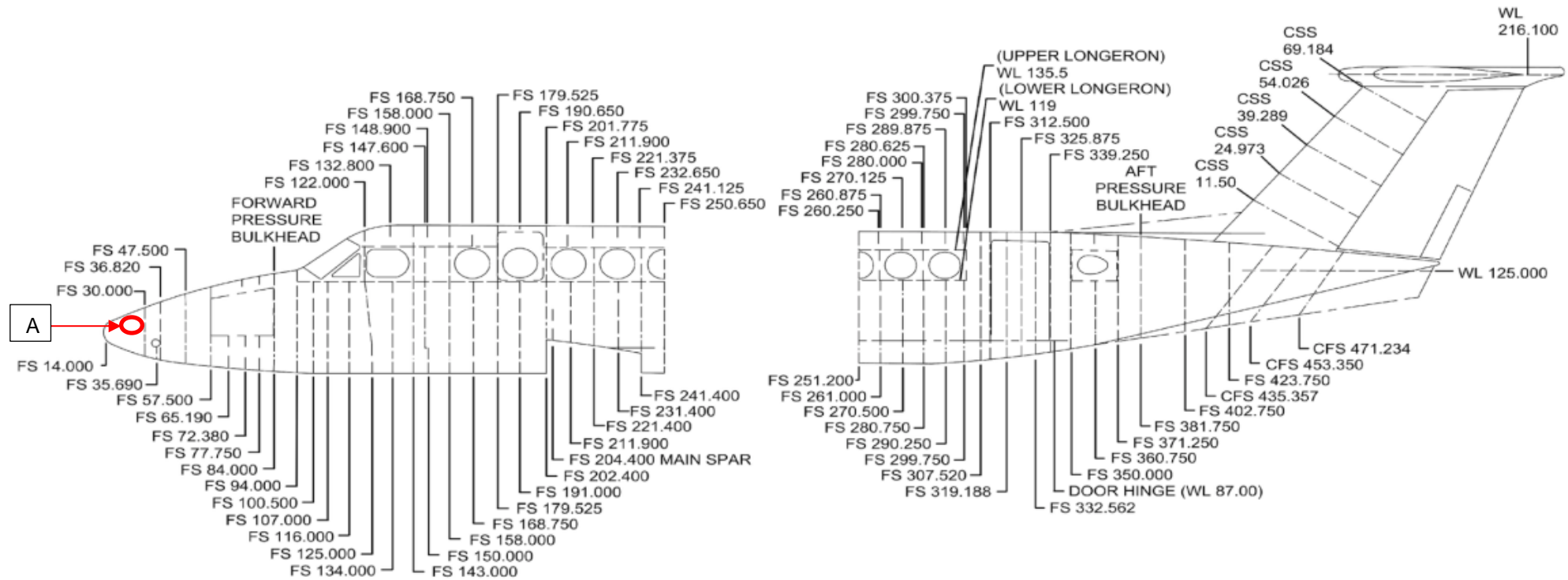




Figure A: Radome

### 2.3 LIGHTNING STRIKE POINT OF EXIT: WINGLET AND OUTBOARD FLAP

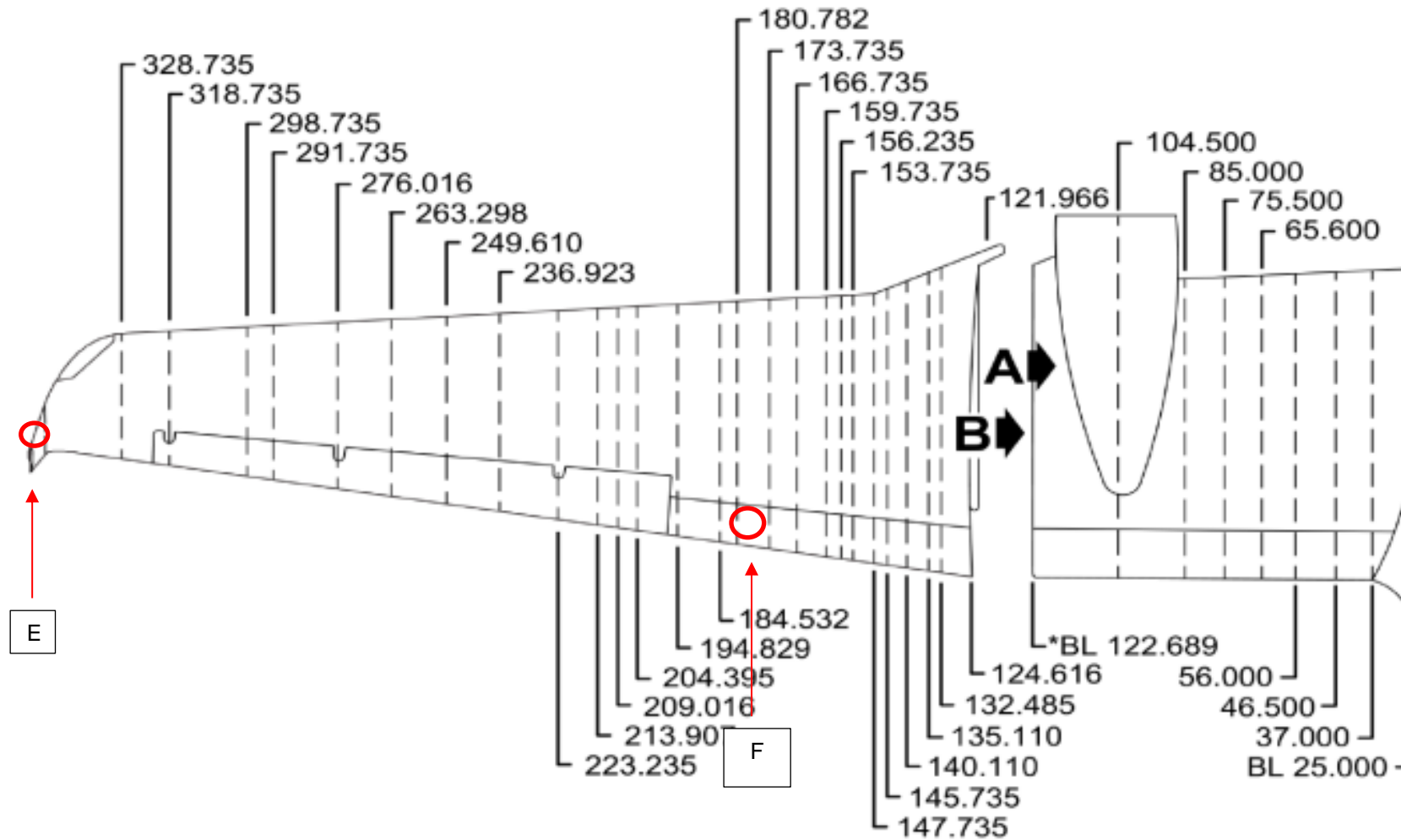




Figure E: Winglet

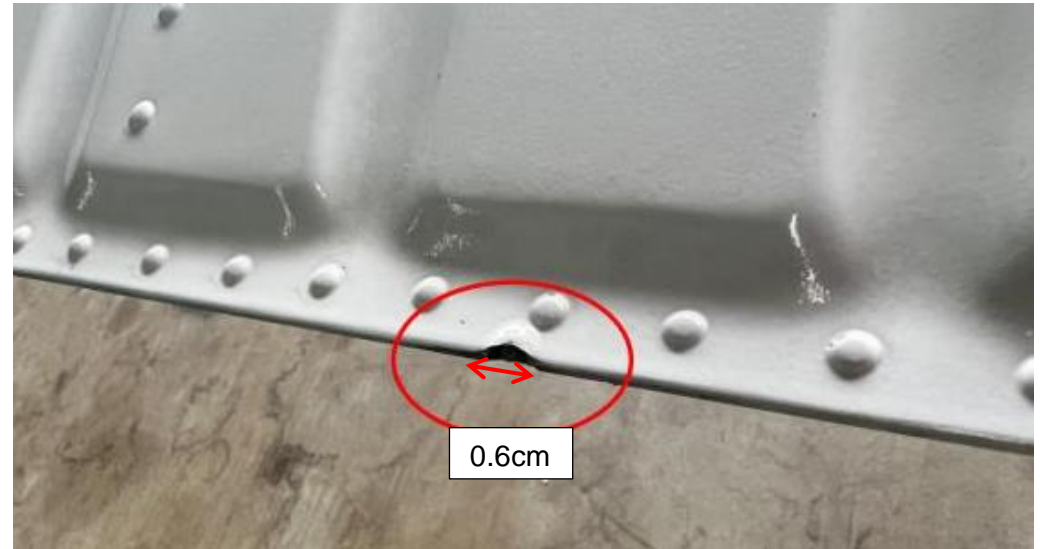


Figure F: Outboard flap



## 2.4 LIGHTING STRIKE POINT OF EXIT: BLADE

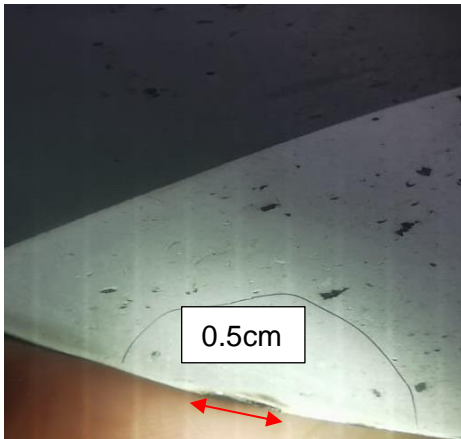
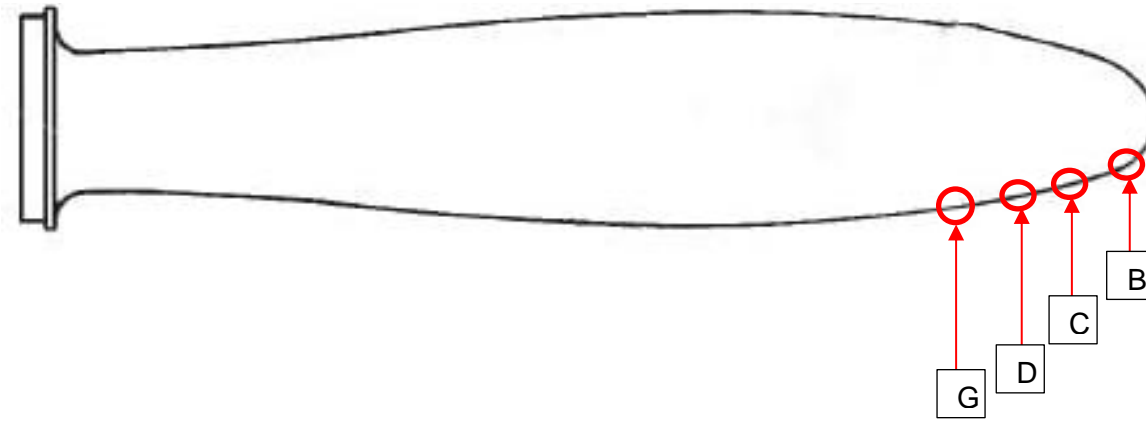


Figure B: Propeller blade



Figure C: Propeller blade

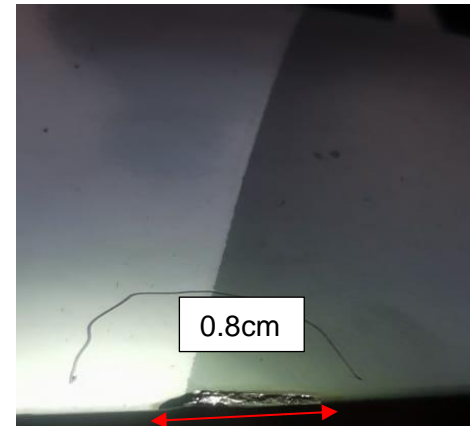


Figure D: Propeller blade

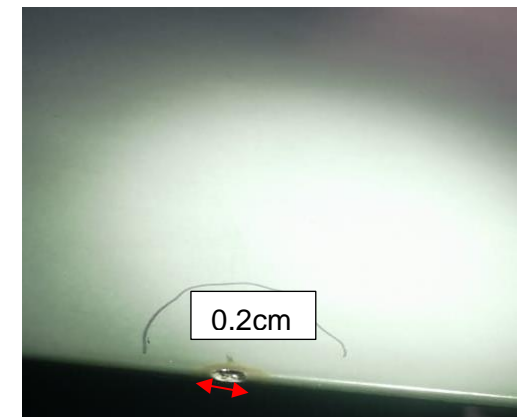


Figure G: Propeller blade

### 3.0 CHRONOLOGY

| NO. | DATE                          | DESCRIPTION   | REMARKS           |
|-----|-------------------------------|---|-------------------|
| 1.  | 11th January 2023             | <ul style="list-style-type: none"> <li>Pilot reported lightning spark on the right propeller with a loud bang during flying from WBGG to WMSA.</li> </ul>                             | <b>Appendix A</b> |
|     |                               | <ul style="list-style-type: none"> <li>GAM LAE carried out preliminary inspection after received report from flight crew to identify the damage cause by lightning strike.</li> </ul> |                   |
| 2.  | 12 <sup>th</sup> January 2023 | <ul style="list-style-type: none"> <li>GAM conducted Crisis Management Meeting for 9M-PTB lightning strike occurrence.</li> </ul>   | <b>Appendix B</b> |
|     |                               | <ul style="list-style-type: none"> <li>Mandatory Occurrence Report (MOR) has been submitted to CAAM.</li> </ul>   |                   |
|     |                               | <ul style="list-style-type: none"> <li>CAMO issued Work order (2023-14151) for After Lightning Strike Inspection</li> </ul>   |                   |
| 3.  | 13 <sup>th</sup> January 2023 | <ul style="list-style-type: none"> <li>AMO initiate thorough inspection based on Work order (2023-14151)</li> </ul>   | <b>Appendix C</b> |

|    |                               |  |                   |
|----|-------------------------------|--|-------------------|
|    |                               | <ul style="list-style-type: none"> <li>GAM raised Technical Query email to Pratt &amp; Whitney regarding the occurrence.</li> </ul>  |                   |
| 4. | 15 <sup>th</sup> January 2023 | <ul style="list-style-type: none"> <li>GAM raised Technical Query email to Textron Aviation regarding the occurrence.</li> <li>LH and RH Propeller Assy removed from 9M-PTB for workshop inspection.</li> <li>LH and RH Propeller Governor removed from 9M-PTB for workshop inspection.</li> </ul> | <b>Appendix D</b> |

**4.0 DETAIL INSPECTION CARRIED OUT:**

**4.1 INSPECTION AFTER LIGHTNING STRIKE**

| NO.              | COMPONENT | INSPECTION / CHECK   | RESULT  | REMARKS  |
|------------------|-----------|--|---|--|
| <b>STRUCTURE</b> |           |  |   |  |
| 1.               | PROPELLER | <ul style="list-style-type: none"> <li>• Inspect the propeller blades</li> <li>• Removed the propeller.</li> </ul>   | <ul style="list-style-type: none"> <li>• Found <b>one pit</b> on the LH side and <b>three pits</b> on RH side propeller blade.</li> <li>• Propeller LH and RH side are <b>removed for overhaul.</b></li> <li>• Propeller governor are <b>removed for overhaul.</b></li> </ul> | <ul style="list-style-type: none"> <li>• Whenever the propeller has been struck by lightning, the propeller governor must be replaced or overhauled.</li> <li>• Refer to Woodward Service Bulletin 33574 or subsequent revision.</li> <li>• Textron recommend the propeller to be <b>SENT OUT</b> to manufacturer for overhaul as mention in AMM.</li> </ul> |
| 2.               | ENGINE    | <ul style="list-style-type: none"> <li>• Propeller shaft and flange must be checked for magnetism.</li> <li>• Checked electrical discharge at the C-flange or at the compressor turbine.</li> <li>• Inspect the main oil filter</li> <li>• Borescope inspection carried out to inspect engines internal</li> </ul> | <ul style="list-style-type: none"> <li>• Residual magnetism found less than <b>±3 gauss</b></li> <li>• <b>No</b> burn sign on C-flange.</li> <li>• <b>No</b> metal particles detected.</li> <li>• <b>No</b> defect found.</li> </ul>  | <ul style="list-style-type: none"> <li>• Refer to SKA B300 AMM ATA 05-50-00.</li> <li>• As there are no metal particles found the engine is considered <b>SERVICEABLE.</b></li> </ul>  |

|    |   |   |   |  |
|----|---|---|---|--|
| 3. | FUSELAGE,<br>EMPENNAGE,<br>AND WING<br>SURFACES | <ul style="list-style-type: none"> <li>• Inspect the nose radome.</li> <li>• Inspect antenna and electrical and electronic equipment.</li> <li>• Inspect wing tips for burn marks, arching holes, rippled skin and condition.</li> <li>• Inspect for missing, broken or damage static dischargers (wicks).</li> </ul> | <ul style="list-style-type: none"> <li>• Found <b>1 burn mark</b> on the radome.</li> <li>• Found <b>3 burn marks</b> inside the radome, which might break the wire mesh.</li> <li>• Antenna and electrical and electronic equipment found <b>satisfactory</b>.</li> <li>• Found <b>burn mark and</b> on the winglet.</li> <li>• <b>13 out of 25</b> static dischargers are <b>replaced</b> due to low resistance.</li> </ul> | <ul style="list-style-type: none"> <li>• Refer to SKA B300 AMM ATA 05-50-00.</li> <li>• Winglet will be <b>repaired</b> as per Structural Inspection Repair Manual.</li> <li>• Textron recommend to <b>check</b> the static dischargers using a megohmmeter with a minimum test voltage of 500 volts to measure resistance of the static dischargers. Refer to SKA B300 ATA 23-60-00.</li> </ul> |
| 4. | FUEL TANKS                                      | <ul style="list-style-type: none"> <li>• Inspect the external surface of the fuel tank.</li> <li>• Accomplish a bonding test between the fuel tank and the wing surface.</li> <li>• Accomplish bonding test between the fuel tank tail-cap and forward fuel tank structure.</li> </ul>                                | <ul style="list-style-type: none"> <li>• <b>No</b> loose or missing fasteners or rivets.</li> <li>• Bonding test found the maximum reading <b>less</b> than <b>2.5 milliohms</b>.</li> </ul>  | <ul style="list-style-type: none"> <li>• Refer to SKA B300 ATA 05-50-00.</li> </ul>  |

|    |                 |  |  |  |
|----|-----------------|--|--|--|
| 5. | CABIN<br>BLOWER | <ul style="list-style-type: none"> <li>Inspect the cabin blower</li> </ul> | <ul style="list-style-type: none"> <li>Found 2 cabin blower motor <b>inoperative</b>.</li> </ul> | <ul style="list-style-type: none"> <li>Refer to SKA B300 ATA 21-21-00</li> <li><b>Install new</b> cabin blower.</li> </ul> |
|----|-----------------|--|--|--|

**5.0 ON-GOING INSPECTION:**

| NO. | COMPONENT | REMARKS |
|-----|-----------|---------|
| 1.  | NIL       | NIL     |

**6.0 PARTS REPLACED:**

| NO. | COMPONENT   | REMARKS        |
|-----|-------------|----------------|
| 1.  | STATIC WICK | 13 EA REPLACED |

**7.0 PARTS TO BE REPLACED:**

| NO. | COMPONENT | REMARKS |
|-----|-----------|---------|
| 1.  | NIL       | NIL     |


**8.0 PARTS TO BE SENT TO WORKSHOP:**

| NO. | COMPONENT          | REMARKS   |
|-----|--------------------|---|
| 1.  | PROPELLER          | <ul style="list-style-type: none"> <li>• Propeller to be inspect or replaced utilizing the Hartzell Standard practices manual 202A.</li> </ul>                      |
| 2.  | PROPELLER GOVERNOR | <ul style="list-style-type: none"> <li>• Propeller governor replaced or overhaul to be carry out according to Woodward SB 335748 due to lighting strike.</li> </ul> |

# APPENDIX

## APPENDIX A

### 1) AIRCRAFT JOURNEY LOG (AJL)

| CLIENT/OPERATOR                                     |                   | AIRCRAFT TYPE              | AIRCRAFT REG. | AIRCRAFT SN     | BASE        | DATE            | DAILY INSPECTION |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |
|---|-------------------|----------------------------|---------------|-----------------|-------------|-----------------|------------------|------------------------|------------|---------|---|-----------|--------------|----------|--------------|----------|----|------|----|------|------|
| ROYAL MALAYSIAN POLICE<br>AIR OPERATION UNIT        |                   | ER30<br>SUPER KING AIR 300 | 9M-PTB        | FL-573          | WPKK        | 11/01/23        | NAME             | ERIK                   |            |         | <br>AIRCRAFT JOURNEY LOG<br>(FORM NO: GAM/CAMO-518/B100 REV. 8)<br>PAGE SERIAL NO: <b>001257</b> |           |              |          |              |          |    |      |    |      |      |
| PREVIOUS INSP                                       |                   | NEXT CALENDAR INSP         |               | NEXT HOURS INSP |             | MEASURING UNITS | AUTH             | ATL 5865               |            |         |   |           |              |          |              |          |    |      |    |      |      |
| REF   | DATE              | INSP                       | DUE           | INSP            | DUE         | FUEL            | LBS              | SIGN                   | ✓          |         |   |           |              |          |              |          |    |      |    |      |      |
| DAIR - PTB 22-002                                   | 10/11/2022        | G-CHARTS                   | 11/01/2023    | PHASE 2         | 10/30/23    | OIL             | QT               | TIME                   | 0220       |         |   |           |              |          |              |          |    |      |    |      |      |
| FLT NO  | PRE-FLIGHT CHECKS |                            |               | PILOT           | CO-PILOT    | OBSERVER        | FROM             | TO                     | TIME       |         | TOTAL FLT   | LANDING   | ENGINE HOURS |          | ENGINE CYCLE |          |    |      |    |      |      |
|   | SIGN              | AUTH                       | TIME          |                 |             |                 |                  |                        | TAKEOFF    | LANDING |   |           | ENG 1        | ENG 2    | ENG 1        | ENG 2    |    |      |    |      |      |
| ✓   | ✓                 | 5865                       | 0830          | ERIK            | CREW        | HIGHAM+3        | WPKK             | WPKG                   | 0930       | 1130    | 2.00  | 1         | 2.00         | 2.00     | 1            | 1        |    |      |    |      |      |
| ✓   | ✓                 | 5865                       | 1520          | ERIK            | CREW        | HIGHAM+3        | WPKG             | WPKG                   | 1435       | 1605    | 2.30  | 1         |              |          |              |          |    |      |    |      |      |
| TOTAL FLIGHT HOURS IN THIS PAGE                     |                   |                            |               |                 |             |                 |                  |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |
| TOTAL BEFORE FLIGHT                                 |                   |                            |               |                 |             |                 |                  |                        |            |         |   |           | 5825         | 20       | 4338         | 2072     | 15 | 5064 | 36 | 1542 | 3509 |
| TOTAL CARRY FORWARD                                 |                   |                            |               |                 |             |                 |                  |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |
| FLT NO  | FUEL REMAINING    |                            |               |                 | FUEL UPLIFT |                 |                  |                        | FUEL TOTAL |         |   |           | OIL UPLIFT   |          |              |          |    |      |    |      |      |
|   | LH                | RH                         | AUX LH        | AUX RH          | LH          | RH              | AUX LH           | AUX RH                 | LH         | RH      | AUX LH  | AUX RH    | ENG 1 LH     | ENG 1 RH | ENG 2 LH     | ENG 2 RH |    |      |    |      |      |
|   | 1250              | 1250                       | 500           | 500             | 150         | 150             | 500              | 500                    | 1290       | 1290    | 500   | 500       |              |          |              |          |    |      |    |      |      |
|   | 1100              | 1100                       | -             | -               |             |                 |                  |                        | 1290       | 1290    | 500   | 500       |              |          |              |          |    |      |    |      |      |
|   | 1050              | 1050                       | -             | -               |             |                 |                  |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |
| RECORD OF DEFECT(S). ENTER 'NIL' IF NO DEFECT FOUND |                   |                            |               | PILOT/ENGINEER  |             | TIME            | NO.              | RECTIFICATION(S) TAKEN |            |         |   | MR SIGN** | AUTH         | DATE     | TIME         |          |    |      |    |      |      |
| NIL   |                   |                            |               | SIGN            | AUTH        |                 |                  |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |
| RIGHT ENGINE LIGHTNING STRIKE                       |                   |                            |               | ✓               | 5865        | 175             |                  |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |
|   |                   |                            |               | ✓               | 5865        | 165             |                  |                        |            |         |   |           |              |          |              |          |    |      |    |      |      |



## 2) PRELIMINARY REPORT

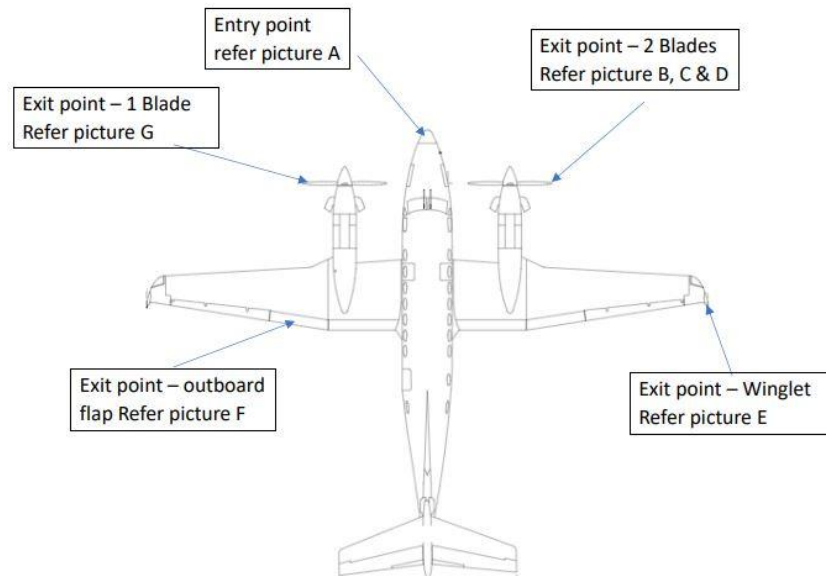
Date: 11/1/2023

### PRELIMINARY REPORT OF 9M-PTB LIGHTNING STRIKE

At 1533hrs 11th January 2023 while descending from FL 260 through FL 230 at 15 NM before waypoint ADNUT, pilot observed lightning spark on the right propeller with a loud bang.

#### Inspection Report

During Inspection found:-



PICTURE A – ENTRY POINT



PICTURE B – EXIT POINT



PICTURE C – EXIT POINT



PICTURE D – EXIT POINT



PICTURE E – EXIT POINT



PICTURE F – EXIT POINT



PICTURE G – EXIT POINT

| CLIENT/OPERATOR                              | AIRCRAFT TYPE              | AIRCRAFT REG.                  | AIRCRAFT SN      | BASE          | DATE          | DAILY INSPECTION   |         |        |        |         |        |                                 |          |          |          |                                |  |  |  |
|--|----------------------------|--------------------------------|------------------|---------------|---------------|--|---------|--------|--------|---------|--------|---------------------------------|----------|----------|----------|--------------------------------|--|--|--|
| ROYAL MALAYSIAN POLICE<br>AIR OPERATION UNIT | B330<br>SUPER KING AIR 330 | M-PRB                          | FL-573           | WACK          | 11/01/2023    | NAME   | ERIK    |        |        |         |        |                                 |          |          |          |                                |  |  |  |
| PREVIOUS BASIC                               | PREVIOUS REG               | PREVIOUS SN                    | PREVIOUS DATE    | PREVIOUS TIME | PREVIOUS AUTH | ATA 565  |         |        |        |         |        |                                 |          |          |          |                                |  |  |  |
| REF: DARE - PRB - 22 - 802                   | INSP: 6 - CHARIS           | INSP: PAGE 2                   | INSP: 11/01/2023 | INSP: 145     | INSP: 0530    | PAGE SERIAL NO: 001257                                     |         |        |        |         |        |                                 |          |          |          |                                |  |  |  |
| DATE: 10/11/2022                             | DUE: 11/01/2023            | DUE: 11/01/2023                | DUE: 11/01/2023  | DUE: 145      | DUE: 0530     | AIRCRAFT JOURNEY LOG<br>(FORM NO. DAMC/ARO-001/030 REV. 0) |         |        |        |         |        |                                 |          |          |          |                                |  |  |  |
| FLT NO.                                      | FLY SIGN                   | FLY AUTH                       | TIME             | PILOT         | CO-PILOT      | OBSERVER   | FROM    | TO     | TAKOFF | LANDING | TOTAL  | LANDING                         | END 1    | END 2    | END 3    |                                |  |  |  |
| 4  | 5865                       | 5865                           | 0830             | W R M         | A R W         | W R M + 3  | WACK    | WACK   | 0930   | 1130    | 2:00   | 1                               | 2:00     | 2:00     | 1        |                                |  |  |  |
| TOTAL FLIGHT HOURS IN THIS PAGE              |                            |                                |                  |               |               |  |         |        |        |         |        | TOTAL BEFORE FLIGHT 5026.204388 |          |          |          | TOTAL AFTER FLIGHT 5028.204388 |  |  |  |
| TOTAL CARRY FORWARD                          |                            |                                |                  |               |               |  |         |        |        |         |        | TOTAL BEFORE FLIGHT 5026.204388 |          |          |          | TOTAL AFTER FLIGHT 5028.204388 |  |  |  |
| FLT NO.                                      | US                         | PH                             | AUX LH           | AUX RH        | LH            | RH   | AUX LH  | AUX RH | LH     | RH      | AUX LH | AUX RH                          | END 1 LH | END 1 RH | END 2 LH | END 2 RH                       |  |  |  |
| 1257   | 1257                       | 500                            | 500              | 100           | 100           | 500  | 500     | 1257   | 1257   | 500     | 500    | 500                             | 500      | 500      | 500      | 500                            |  |  |  |
| 100  | 100                        | -                              | -                | -             | -             | -  | -       | -      | -      | -       | -      | -                               | -        | -        | -        | -                              |  |  |  |
| 1000   | 1000                       | -                              | -                | -             | -             | -  | -       | -      | -      | -       | -      | -                               | -        | -        | -        | -                              |  |  |  |
| NO.  | RECORD OF DEFECTS          | ENTER 'N/A' IF NO DEFECT FOUND | PILOT / ENGINEER | TIME          | NO.           | RECTIFICATION(S) TAKEN                                     | NR SIGN | AUTH   | DATE   | TIME    |        |                                 |          |          |          |                                |  |  |  |
|  | RIGHT ENGINE               | CIRCUITRY STRIKE               | W R M            | 1135          | 4             |  |         |        |        |         |        |                                 |          |          |          |                                |  |  |  |
|  |                            |                                | A R W            | 1615          | 4             |  |         |        |        |         |        |                                 |          |          |          |                                |  |  |  |

AJL - 001257

# APPENDIX B

## 1) MINUTE OF MEETING



### CRISIS MANAGEMENT MINUTES OF MEETING – 01/23



|                         |  |
|-------------------------|--|
| <b>Meeting Title:</b>   | 9M-PTB Lightning Strike  |
| <b>Date of Meeting:</b> | 12 Jan 2023  |
| <b>Time:</b>            | 0930H – 1015H  |
| <b>Location:</b>        | COO Office, GAM OC   |
| <b>Chairperson:</b>     | Omar bin Ahmad (Quality Assurance Manager)   |
| <b>Attendee:</b>        | <ol style="list-style-type: none"> <li>1. Azillah bin Matap (Deputy Engineering Manager)</li> <li>2. Wan Izahan Zameeree Ishak (Safety &amp; Health Manager – SHM)</li> <li>3. Haji Amran Shah bin Masnon (Chief Engineer)</li> <li>4. Amir bin Abdullah (Deputy CAMM)</li> <li>5. Mohd Zainurin bin Mat Arip (GAM – EIC)</li> <li>6. Mohd Syafiq bin Ismail (ARS)</li> <li>7. Mustaqim Mofty (Safety Executive)</li> <li>8. Muhammad Izzuddin bin Ibeharim (QAI)</li> </ol> |

|  |
|--|
| <b>Meeting Objective</b>   |
| To carry out investigation and determine root cause analyses on the incident. Lightning Strike on 9M-PTB |

| No.                             | Remarks   |
|---------------------------------|---|
| <b>1.0 Welcoming</b>            | Chairman welcoming everyone with thanks to all for being present at the meeting even though in short notice.  |
| <b>2.0 Introduction</b>         | To discuss the incident of lightning strike on 9M-PTB during flight   |
| <b>3.0 Incident Information</b> | <p>Incident Date 11 Jan 2023<br/>                     Incident Time 1533 hours<br/>                     Aircraft Type King Air B300<br/>                     Aircraft Registration 9M-PTB<br/>                     Serial Number FL-593<br/>                     Owner PASUKAN GERAKAN UDARA (PDRM)<br/>                     Operator PASUKAN GERAKAN UDARA (PDRM)<br/>                     Detail Incident At 1533hrs 11th January 2023 while descending from FL 260 through FL 230 at 15 NM before waypoint ADNUT, pilot observed lightning spark on the right propeller with a loud bang. Preliminary Inspection carried out by GAM LAE with to identify the lightning entry and exit point on the aircraft. Inspection found</p> <ol style="list-style-type: none"> <li>1. Entry point – Aircraft nose</li> <li>2. Exit Point                             <ol style="list-style-type: none"> <li>i. 1 LH propeller blade</li> <li>ii. 2 RH propeller blades</li> <li>iii. LH outboard flap</li> <li>iv. RH winglet</li> </ol> </li> </ol> |

| No. | Topic             | Discussion  | Remarks          |
|-----|-------------------|---|------------------|
| 4.0 | Root Cause        | a) Materials<br>Not applicable  |                  |
|     |                   | b) Method<br>Not applicable   |                  |
|     |                   | c) Environment<br>Weather – lightning strike                                |                  |
|     |                   | d) Machines<br>To be determine  |                  |
|     |                   | e) Man<br>To be determine   |                  |
| 5.0 | Corrective Action | a) Aircraft was grounded for troubleshooting after reported by pilot        |                  |
|     |                   | b) CAMO Planner to raise Work Pack for aircraft lightning strike inspection |                  |
|     |                   | c) AMO to carry out inspection as required by manufacture AMM/EMM           |                  |
| 6.0 | Preventive Action | a) GAM to liaise with Engine Technical Rep. for recommended action          |                  |
| 7.0 | Reporting         | a) PGU to raise OR – Borang 9 to CAAM Flight Ops                            |                  |
|     |                   | b) To raise MOR Airworthiness Aspect to CAAM                                | Ref: MOR/2023/01 |
|     |                   | c) GAM to raise Exemption Letter from KPI 1,2, & 3 calculation to PGU       |                  |

|                                |
|--------------------------------|
| <b>Closing</b>                 |
| The meeting end at 1015 hours. |

|   |   |                                |
|---|---|--------------------------------|
| <b>The minute of meeting prepared by</b>  |   | MUHAMMAD IZZUDDIN BIN IBEHARIM |
|  |  |                                |

|   |   |                |
|---|---|----------------|
| <b>The minute of meeting verified by</b>  |   | OMAR BIN AHMAD |
|  | OMAR BIN AHMAD<br>Quality Assurance Manager<br>Galaxy Aerospace (M) Sdn. Bhd<br>(1040262-D) |                |

## 2) EMAIL TO CAAM



Nur Asfeena Roslan <asfeena.galaxy@gmail.com>

**Fw: Mandatory Occurrence Reporting (MOR) KingAir B300 9M-PTB - Lightning Strike**

2 messages

Mohd Zainurin Mat Arip <zainurin.galaxy aerospace@gmail.com>  
 To: Nur Asfeena Roslan <asfeena.galaxy@gmail.com>

26 January 2023 at 14:46

Sent from my phone

----- Original message -----

From: omar@galaxy aerospace.my

Date: Thu, 12 Jan 2023, 17:38

To: mor.airworthiness@caam.gov.my

Cc: 'SHAMSUL KAMAR SAMSUDIN' <sam@galaxy aerospace.my>, 'ismail sulaiman' <ismail@galaxy aerospace.my>, 'Syafzul Yamani Safurudin' <syafzul@galaxy aerospace.my>, 'QUALITY GAM' <quality@galaxy aerospace.my>, 'Amran Shah Masnoni' <amran@galaxy aerospace.my>, 'Amir Abdullah' <amirabdullah@galaxy aerospace.my>, 'Azillah' <azillah@galaxy aerospace.my>, 'Wan Izahan Zameree Ishak' <izahan@galaxy aerospace.my>, 'Mohd Zainurin Mat Arip' <zainurin@galaxy aerospace.my>, 'Mohamad Sofian Bin Biyamin' <sofian@caam.gov.my>

Subject: Mandatory Occurrence Reporting (MOR) KingAir B300 9M-PTB - Lightning Strike

Assalamualaikum wbt,

Dear Sir/Madam,

With reference to the above subject, we would like to report to your good office with respect to incident occurred for the following aircraft:

|                       |                              |
|-----------------------|------------------------------|
| Incident Date         | 11 Jan 2023                  |
| Incident Time         | 1533 hours                   |
| Aircraft Type         | King Air B300                |
| Aircraft Registration | 9M-PTB                       |
| Serial Number         | FL-593                       |
| Owner                 | PASUKAN GERAKAN UDARA (PDRM) |
| Operator              | PASUKAN GERAKAN UDARA (PDRM) |

Owner PASUKAN GERAKAN UDARA (PDRM)

Operator PASUKAN GERAKAN UDARA (PDRM)

Detail Incident At 1533hrs 11th January 2023 while descending from FL 260 through FL 230 at 15 NM before waypoint ADNUT, pilot observed lightning spark on the right propeller with a loud bang. Preliminary inspection carried out by GAM LAE with to identify the lightning entry and exit point on the aircraft. Inspection found

1. Entry point – Aircraft nose

2. Exit Point

- i. 1 LH propeller blade
- ii. 2 RH propeller blades
- iii. LH outboard flap
- iv. RH winglet

Enclosed please find:

- 1. CAAM/AW/8503-01
- 2. Preliminary Report
- 3. Crisis Management Meeting Minute 01/23

Further inputs will be provided once we complete the investigation and inspections.

Thank you.

Regards,

OMAR AHMAD

Quality Assurance Manager

for and on behalf of

*GALAXY AEROSPACE (M) SDN BHD*

### 3) MANDATORY OCCURANCE REPORT (MOR)

CAAM/AW/8503-01  
140921



**CIVIL AVIATION AUTHORITY OF MALAYSIA**  
**MANDATORY OCCURANCE REPORT (MOR) – AIRWORTHINESS ASPECT**  
(Civil Aviation Regulation 2016)

| SECTION 1 – SUBMITTER INFORMATION    |   |   |                                      |
|--------------------------------------|---|---|--------------------------------------|
| 1.1                                  | Date of Occurrence  | : | 11 January 2023                      |
| 1.2                                  | Aircraft Registration   | : | 9M-PTB                               |
| 1.3                                  | Submitter Type  | : | AMO - Part 145                       |
| 1.4                                  | Organisation Approval / AML Number                                | : | AMO/2016/02                          |
| 1.5                                  | Submitter's Designated MOR Reference No.                          | : | MOR/2023/01                          |
| SECTION 2 – ADDITIONAL INFORMATION   |   |   |                                      |
| 2.1                                  | If Submitter Type is CAMO/CAD                                     | : | General Aviation – Private Operation |
| 2.2                                  | If Submitter Type is AMO (Part 145/ Part M Subpart F)/ AML Holder | : | Line and Base                        |
| 2.3                                  | If Submitter Type is POA  | : | Choose an item.                      |
| SECTION 3 – MAJOR EQUIPMENT IDENTITY |   |   |                                      |
| 3.1 AIRCRAFT DETAILS                 |   |   |                                      |
| (a)                                  | Manufacturer/TC Holder  | : | TEXTRON AVIATION INC.                |
| (b)                                  | Type/Model  | : | KING AIR B300                        |
| (c)                                  | Serial Number   | : | FL-593                               |
| (d)                                  | Total Time Since New TTSN (Hours)                                 | : | 5835:20                              |
| (e)                                  | Total Cycles Since New TCSN                                       | : | 3766                                 |
| 3.2 ENGINE DETAILS                   |   |   |                                      |
| (a)                                  | Manufacturer/TC Holder  | : | PRATT & WHITNEY CANADA               |
| (b)                                  | Type/Model  | : | PT6A-60A                             |
| (c)                                  | Serial Number   | : | PCE-PK1183 / PCE-PK0970              |
| (d)                                  | TTSN/TTSO (Hours)   | : | #1 - 2972:15<br>#2 - 5863:36 /       |
| (e)                                  | TCSN/TCSD   | : | #1 - 1539<br>#2 - 3506 /             |
| 3.3 PROPELLER DETAILS                |   |   |                                      |
| (a)                                  | Manufacturer/TC Holder  | : | HARTZELL                             |
| (b)                                  | Type/Model  | : | HC-B4MP-3C                           |
| (c)                                  | Serial Number   | : | #1 - FWA-4550<br>#2 - FWA-5190       |
| (d)                                  | TTSN/TTSO (Hours)   | : | #1 - 5610:51<br>#2 - 3434:20 /       |
| (e)                                  | TCSN/TCSD   | : | /                                    |

CAAM/AW/8503-01  
140921

| SECTION 4 - PROBLEM DESCRIPTION  |   |
|--|---|
| <p>At 1533hrs 11th January 2023 while descending from FL 260 through FL 230 at 15 NM before waypoint ADNUT, pilot observed lightning spark on the right propeller with a loud bang. Preliminary inspection carried out by GAM LAE with to identify the lightning entry and exit point on the aircraft. Inspection found</p> <ol style="list-style-type: none"> <li>Entry point – Aircraft nose</li> <li>Exit Point               <ol style="list-style-type: none"> <li>1 LH propeller blade</li> <li>2 RH propeller blades</li> <li>LH outboard flap</li> <li>RH winglet</li> </ol> </li> </ol> |   |
| SECTION 5 – MOR INFORMATION  |   |
| 5.1  | ATA Code : 53 FUSELAGE  |
| 5.2  | Sub ATA Code :  |
| 5.3  | How Discovered : D – Other Specify if other: VISUAL CONTACT                                       |
| 5.4  | Nature of Condition : D – Other Specify if other: LIGHTNING STRIKE                                |
| 5.5  | Precautionary Procedures : D – Other Specify if other: AFFECTED AIRCRAFT GROUNDED                 |
| SECTION 6 – SUPPORTING DOCUMENT DETAILS (AMM, AD, SB, CAME, MOE, ETC, DIRECTLY RELEVANT TO OCCURRENCE)   |   |
| 6.1  | Type of Document : <input type="checkbox"/> Hardcopy <input checked="" type="checkbox"/> Softcopy |
| 6.2  | Document Name : Occurrence Report   |
| 6.3  | Document Reference Number : GAM/Q-038   |
| SECTION 7 – SPECIFIC PART OR STRUCTURE CAUSING DIFFICULTY  |   |
| 7.1  | Part Name :   |
| 7.2  | Part No. :  |
| 7.3  | Part Condition :  |
| 7.4  | Time Since (Hours) : <input type="checkbox"/> Repair <input type="checkbox"/> Inspection          |
| 7.5  | Manufacturer's Name :   |
| 7.6  | Serial No. :  |
| 7.7  | Part Detect Location : Others (Please state)  |
| 7.8  | *If other location (please specify) :   |
| 7.9  | TTSN/TTSO (Hours) : /   |
| 7.10   | TCSN/TCSD : /   |
| SECTION 8 – COMPONENT ASSEMBLY THAT INCLUDES DEFECTIVE PART  |   |
| 8.1  | Component Name : N/A  |
| 8.2  | Part No. :  |
| 8.3  | Model Number :  |

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8.4 Time Since (Hours) :   Repair  Inspection

8.5 Manufacturer's Name :

8.6 Serial No. :

8.7 Location :

8.8 TTSN/TTSO (Hours) :  /

8.9 TCSN/TC SO :  /

8.10 Is the part rotatable :  YES  NO

**SECTION 9 – DECLARATION**

9.1  I hereby declare that all the particulars given above are true and correct.

9.2 Submitter's Name :

9.3 Contact Number :

9.4 Email Address :

**CAAM OFFICIAL (MOR Coordinator)**

Received by :  Date :

CAAM Designated MOR Reference Number :

CAAM/AW/8503-01  
140921

CAAM Designated MOR Reference Number :

**CAAM OFFICIAL (Inspector)**  
**Assessment**  
*(Detail out how assessment is carried out; desktop review, interviews, site inspection, etc. and the conclusion of the assessment).*

Click or tap here to enter text.

**Action**  
*(State Inspector's recommended immediate corrective action conveyed to the organisation or state the acceptable immediate corrective action taken by the organisation).*

Click or tap here to enter text.

Inspector's Signature :

Date :

Inspector's Name / Stamp :

CAAM/AW/8503-01  
140921

**INSTRUCTIONS**

|  |  |
|--|--|
| <b>SECTION 1 – SUBMITTER INFORMATION</b>                           |  |
| 1.5  | Submitter must assign its own MOR reference number for the purpose of document control.  |
| <b>SECTION 4 – PROBLEM DESCRIPTION</b>                             |  |
|  | Describe the occurrence in chronological order including any mishaps that occurred or hazard that it presents.   |
| <b>SECTION 5 – MOR INFORMATION</b>                                 |  |
| 5.2  | Refer to the Sub ATA Code listed in CAGM 8503.   |
| <b>SECTION 6 – SUPPORTING DOCUMENT DETAILS</b>                     |  |
| 6.2  | Related document that helps illustrates the occurrence.  |
| <b>SECTION 7 – SPECIFIC PART OR STRUCTURE CAUSING DIFFICULTY</b>   |  |
| 7.1  | Specific part or structure being the cause or contribute to the cause of the occurrence.   |
|  | <i>*Note: if the detail information was not able to be acquired within 48 hours of the occurrences for the compilation of the report, the detail shall be included in the pre-analysis report of the occurrence.</i> |
| <b>SECTION 8 – COMPONENT ASSEMBLY THAT INCLUDES DEFECTIVE PART</b> |  |
| 8.1  | The component assembly that contains a defective part that cause the occurrence.   |
|  | <i>*Note: if the detail information was not able to be acquired within 48 hours of the occurrences for the compilation of the report, the detail shall be included in the pre-analysis report of the occurrence.</i> |





| CLIENT/OWNER: ROYAL MALAYSIA POLICE   |  | SERIAL NO.               | HOURS      | LDG/CYCLE  | WORKSHEET NO:   | 14151-001   |
|---|--|--------------------------|------------|--|-----------------|---|
| AIRCRAFT TYPE: B300 (SKA350)  |  | AIRCRAFT                 | FL-503     | REFER WORKPACK   | WORK/INSP/DESC: | LIGHTNING STRIKE                                  |
| REGISTRATION: 9M-P7B  |  | #1 ENGINE                | PCE-PK1183 | REFER WORKPACK   | WORKPACK REF:   | 9M-P7B-14151                                      |
| BASE/FACILITY: WMSA   |  | #2 ENGINE                | PCE-PK0970 | REFER WORKPACK   | A/L REF NO.:    | REFER WORKPACK                                    |
| DATE IN: REFER WORKPACK   |  | DATE OUT: REFER WORKPACK |            | NG / N1  | NF / N2         | SHEET: 1 OF 6                                     |
| Reason for raising:<br>INSPECTION AFTER LIGHTNING STRIKE TO BE CARRY OUT IN ACCORDANCE WITH AIRCRAFT MAINTENANCE PROGRAMME: RMPAC/CAMO/AMP/B300 ISSUE 2 REVISION 0 DATED MAY-31-2021 OR LATER APPROVED REVISIONS. |  |                          |            | Raised by and date:<br>CAMO: Nurul Huma<br>Zainul Abidin<br>12/01/2023 |                 | Other requirements/information:<br>NOT APPLICABLE |
| Item  | Description  | Technician               | * Eng. CRS | Date   |                 |   |
| 1   | <p>TABLE 608. INSPECTION AFTER LIGHTNING STRIKE.</p> <p>LEFT HAND PROPELLER INSPECTION TO BE CARRY OUT IN ACCORDANCE WITH SKA B300 MM ATA 05-00-00, TABLE 608</p> <p>WARNING:<br/>PRIOR TO MAKING AN INITIAL AIRPLANE INSPECTION FOLLOWING A SUSPECTED LIGHTNING STRIKE, INSURE THE AIRPLANE IS PROPERLY GROUNDED. DAMAGE TO STATIC WICKS FROM A LIGHTNING STRIKE MAY CAUSE STATIC ELECTRIC CHARGE BUILDUP ON THE AIRPLANE SURFACES WHICH COULD RESULT IN INJURY TO PERSONNEL THAT MAKE CONTACT WITH THE SURFACE. THIS TYPE OF STATIC BUILDUP CAN ALSO BE CREATED BY AIRFLOW OVER STRUCTURAL SURFACES OF THE AIRPLANE WHILE IT IS ON THE GROUND.</p> <p>CAUTION: PROPELLERS MUST BE INSPECTED AND/OR REPLACED UTILIZING THE HARTZELL STANDARD PRACTICES MANUAL 202A OR SUBSEQUENT PRIOR TO RETURNING THE AIRPLANE TO SERVICE FOLLOWING ANY LIGHTNING STRIKES OR OTHER IMPACT DAMAGE.</p> <p>REFERENCE: 1. SKA B300 MM ATA 05-00-00, TABLE 608, ITEM #1<br/>                 2. KA CHAPTER 20 STANDARD PRACTICES - AIRFRAME ATA 20-80-00 #2 A</p> <p>RECTIFICATION:</p> |                          |            |  |                 |   |

\*Certifies that the work specified above, except as otherwise specified, was carried out in accordance with CAA Malaysia Requirements and in respect to that work the aircraft / aircraft component is considered ready for release to service.

\*Certifies that the work specified above, except as otherwise specified, was carried out in accordance with \_\_\_\_\_ and in respect to that work the aircraft / aircraft component is considered ready for release to service.

TICK  WHERE APPLICABLE

|             |       |             |        |            |         |             |            |         |       |       |       |       |       |       |       |       |       |       |       |       |
|-------------|-------|-------------|--------|------------|---------|-------------|------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| APPROV. BY: | DATE: | SERIAL NO.: | HOURS: | LDG/CYCLE: | ENGINE: | ADDITIONAL: | REVISIONS: | FLIGHT: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: |
|-------------|-------|-------------|--------|------------|---------|-------------|------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

| CLIENT/OWNER: ROYAL MALAYSIA POLICE   |   | SERIAL NO.               | HOURS      | LDG/CYCLE  | WORKSHEET NO:   | 14151-001   |
|---|---|--------------------------|------------|--|-----------------|---|
| AIRCRAFT TYPE: B300 (SKA350)  |   | AIRCRAFT                 | FL-503     | REFER WORKPACK   | WORK/INSP/DESC: | LIGHTNING STRIKE                                  |
| REGISTRATION: 9M-P7B  |   | #1 ENGINE                | PCE-PK1183 | REFER WORKPACK   | WORKPACK REF:   | 9M-P7B-14151                                      |
| BASE/FACILITY: WMSA   |   | #2 ENGINE                | PCE-PK0970 | REFER WORKPACK   | A/L REF NO.:    | REFER WORKPACK                                    |
| DATE IN: REFER WORKPACK   |   | DATE OUT: REFER WORKPACK |            | NG / N1  | NF / N2         | SHEET: 2 OF 6                                     |
| Reason for raising:<br>INSPECTION AFTER LIGHTNING STRIKE TO BE CARRY OUT IN ACCORDANCE WITH AIRCRAFT MAINTENANCE PROGRAMME: RMPAC/CAMO/AMP/B300 ISSUE 2 REVISION 0 DATED MAY-31-2021 OR LATER APPROVED REVISIONS. |   |                          |            | Raised by and date:<br>CAMO: Nurul Huma<br>Zainul Abidin<br>12/01/2023 |                 | Other requirements/information:<br>NOT APPLICABLE |
| Item  | Description   | Technician               | * Eng. CRS | Date   |                 |   |
| 2   | <p>TABLE 608. INSPECTION AFTER LIGHTNING STRIKE.</p> <p>PROPELLER GOVERNORS REPLACED OR OVERHAULED TO BE CARRY OUT IN ACCORDANCE WITH SKA B300 MM ATA 05-00-00, TABLE 608</p> <p>LEFT HAND PROPELLER GOVERNOR REMOVAL TO BE CARRY OUT IN ACCORDANCE WITH PT6A-60A EMM ATA 61.20.00</p> <p>ITEM:</p> <p>PART NUMBER:</p> <p>SERIAL NUMBER:</p> <p>REFERENCE: 1. SKA B300 MM ATA 05-00-00, TABLE 608, ITEM #1<br/>                 2. WOODWARD SB 335748<br/>                 3. PT6A-60A EMM ATA 61.20.00 #5 A</p> <p>REMARKS:</p> |                          |            |  |                 |   |
| 3   | <p>TABLE 608. INSPECTION AFTER LIGHTNING STRIKE.</p> <p>LEFT HAND PROPELLER GOVERNOR INSTALLATION TO BE CARRY OUT IN ACCORDANCE WITH PT6A-60A EMM ATA 61.20.00</p> <p>ITEM:</p> <p>PART NUMBER:</p> <p>SERIAL NUMBER:</p> <p>REFERENCE: PT6A-60A EMM ATA 61.20.00 #5 C</p> <p>REMARKS:</p>  |                          |            |  |                 |   |
| 31  | <p>THE DUPLICATE INSPECTION FOR TASK TABLE 608. INSPECTION AFTER LIGHTNING STRIKE. (CORRECT INSTALLATION, PROPER INSTALLATION AND SECURITY OF ATTACHMENT) CARRIED OUT IN ACCORDANCE WITH THE CAD 8821 PARA 5.1(23)</p> <p>1st Inspector Sign: _____ Approval/Stamp: _____ DATE: _____</p> <p>2nd Inspector Sign: _____ Approval/Stamp: _____ DATE: _____</p>  |                          |            |  |                 |   |

\*Certifies that the work specified above, except as otherwise specified, was carried out in accordance with CAA Malaysia Requirements and in respect to that work the aircraft / aircraft component is considered ready for release to service.

\*Certifies that the work specified above, except as otherwise specified, was carried out in accordance with \_\_\_\_\_ and in respect to that work the aircraft / aircraft component is considered ready for release to service.

TICK  WHERE APPLICABLE

|             |       |             |        |            |         |             |            |         |       |       |       |       |       |       |       |       |       |       |       |       |
|-------------|-------|-------------|--------|------------|---------|-------------|------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| APPROV. BY: | DATE: | SERIAL NO.: | HOURS: | LDG/CYCLE: | ENGINE: | ADDITIONAL: | REVISIONS: | FLIGHT: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: | TIME: | DATE: |
|-------------|-------|-------------|--------|------------|---------|-------------|------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

**WORKSHEET**



|  |   |   |   |   |  |
|--|---|---|---|---|--|
| CLIENT/OWNER: ROYAL MALAYSIA POLICE<br>AIRCRAFT TYPE: B300 (SKA300)<br>REGISTRATION: 9M-PTB<br>BASE/FACILITY: WMSA<br>DATE IN: REFER WORKPACK. OUT: REFER WORKPACK   |   | SERIAL NO. FL-503<br>#1 ENGINE: PCE-PK1183<br>#2 ENGINE: PCE-PK0070     | HOURS<br>REFER WORKPACK<br>REFER WORKPACK<br>REFER WORKPACK | LDG/CYCLE   | WORKSHEET NO: 14151-001<br>WORK/INSP/DESC: LIGHTNING STRIKE<br>WORKPACK REF: 9M-PTB-14151<br>A.I.L. REF NO.: REFER WORKPACK<br>SHEET: 3 OF 6 |
| Reason for raising:<br>INSPECTION AFTER LIGHTNING STRIKE TO BE CARRY OUT IN ACCORDANCE WITH AIRCRAFT MAINTENANCE PROGRAMME: RMPAOP/CAMO/AMP/B300 ISSUE 2 REVISION 0 DATED MAY-31-2021 OR LATER APPROVED REVISIONS.   |   | Raised by and date:<br>CAMO, Nurul Husna<br>Zainul Abidin<br>12/01/2023 |   | Other requirements/information:<br>NOT APPLICABLE |  |
| Item   | Description   | Technician  | * Eng. CRS  | Date  |  |
| 4  | TABLE 608. INSPECTION AFTER LIGHTNING STRIKE.<br><br>RIGHT HAND PROPELLER INSPECTION TO BE CARRY OUT IN ACCORDANCE WITH SKA B300 MM ATA 05-00-00, TABLE 608<br><br>WARNING:<br>PRIOR TO MAKING AN INITIAL AIRPLANE INSPECTION FOLLOWING A SUSPECTED LIGHTNING STRIKE, INSURE THE AIRPLANE IS PROPERLY GROUNDED. DAMAGE TO STATIC WICKS FROM A LIGHTNING STRIKE MAY CAUSE STATIC ELECTRIC CHARGE BUILDUP ON THE AIRPLANE SURFACES WHICH COULD RESULT IN INJURY TO PERSONNEL THAT MAKE CONTACT WITH THE SURFACE. THIS TYPE OF STATIC BUILDUP CAN ALSO BE CREATED BY AIRFLOW OVER STRUCTURAL SURFACES OF THE AIRPLANE WHILE IT IS ON THE GROUND.<br><br>CAUTION: PROPELLERS MUST BE INSPECTED AND/OR REPLACED UTILIZING THE HARTZELL STANDARD PRACTICES MANUAL 202A OR SUBSEQUENT PRIOR TO RETURNING THE AIRPLANE TO SERVICE FOLLOWING ANY LIGHTNING STRIKES OR OTHER IMPACT DAMAGE.<br><br>REFERENCE: 1. SKA B300 MM ATA 05-00-00, TABLE 608, ITEM #1<br>2. KA CHAPTER 20 STANDARD PRACTICES - AIRFRAME ATA 20-80-00 #2.A<br><br>RECTIFICATION: |   |   |   |  |
| <input type="checkbox"/> Certifies that the work specified above, except as otherwise specified, was carried out in accordance with CAA Malaysia Requirements and in respect to that work the aircraft / aircraft component is considered ready for release to service.<br><input type="checkbox"/> Certifies that the work specified above, except as otherwise specified, was carried out in accordance with _____ and in respect to that work the aircraft / aircraft component is considered ready for release to service. |   |   |   |   |  |
| <input checked="" type="checkbox"/> TICK WHERE APPLICABLE  |   |   |   |   |  |
| REP. MANAGER   | CEO   | CEO   | CEO   | CEO   | CEO  |

**WORKSHEET**



|  |  |   |   |   |  |
|--|--|---|---|---|--|
| CLIENT/OWNER: ROYAL MALAYSIA POLICE<br>AIRCRAFT TYPE: B300 (SKA300)<br>REGISTRATION: 9M-PTB<br>BASE/FACILITY: WMSA<br>DATE IN: REFER WORKPACK. OUT: REFER WORKPACK   |  | SERIAL NO. FL-503<br>#1 ENGINE: PCE-PK1183<br>#2 ENGINE: PCE-PK0070     | HOURS<br>REFER WORKPACK<br>REFER WORKPACK<br>REFER WORKPACK | LDG/CYCLE   | WORKSHEET NO: 14151-001<br>WORK/INSP/DESC: LIGHTNING STRIKE<br>WORKPACK REF: 9M-PTB-14151<br>A.I.L. REF NO.: REFER WORKPACK<br>SHEET: 4 OF 6 |
| Reason for raising:<br>INSPECTION AFTER LIGHTNING STRIKE TO BE CARRY OUT IN ACCORDANCE WITH AIRCRAFT MAINTENANCE PROGRAMME: RMPAOP/CAMO/AMP/B300 ISSUE 2 REVISION 0 DATED MAY-31-2021 OR LATER APPROVED REVISIONS.   |  | Raised by and date:<br>CAMO, Nurul Husna<br>Zainul Abidin<br>12/01/2023 |   | Other requirements/information:<br>NOT APPLICABLE |  |
| Item   | Description  | Technician  | * Eng. CRS  | Date  |  |
| 5  | TABLE 608. INSPECTION AFTER LIGHTNING STRIKE.<br><br>PROPELLER GOVERNOR REPLACED OR OVERHAULED TO BE CARRY OUT IN ACCORDANCE WITH WOODWARD SB 335748<br>RIGHT HAND PROPELLER GOVERNOR REMOVAL TO BE CARRY OUT IN ACCORDANCE WITH PT6A-60A EMM ATA 61.20.00 #5.A<br><br>ITEM:<br><br>PART NUMBER:<br><br>SERIAL NUMBER:<br><br>REFERENCE: 1. SKA B300 MM ATA 05-00-00, TABLE 608, ITEM #1<br>2. WOODWARD SB 335748<br>3. PT6A-60A EMM ATA 61.20.00 #5.A<br><br>REMARKS: |   |   |   |  |
| 6  | TABLE 608. INSPECTION AFTER LIGHTNING STRIKE.<br><br>RIGHT HAND PROPELLER GOVERNORS INSTALLATION TO BE CARRY OUT IN ACCORDANCE WITH PT6A-60A EMM ATA 61.20.00<br><br>ITEM:<br><br>PART NUMBER:<br><br>SERIAL NUMBER:<br><br>REFERENCE: PT6A-60A EMM ATA 61.20.00 #5.C<br><br>REMARKS:  |   |   |   |  |
| 6.1  | THE DUPLICATE INSPECTION FOR TASK TABLE 608. INSPECTION AFTER LIGHTNING STRIKE (CORRECT INSTALLATION, PROPER INSTALLATION AND SECURITY OF ATTACHMENT) CARRIED OUT IN ACCORDANCE WITH THE CAD 8001 PARA 5.1(23)<br><br>1st Inspector Sign: _____ Approval/Stamp: _____ DATE: _____<br><br>2nd Inspector Sign: _____ Approval/Stamp: _____ DATE: _____   |   |   |   |  |
| <input type="checkbox"/> Certifies that the work specified above, except as otherwise specified, was carried out in accordance with CAA Malaysia Requirements and in respect to that work the aircraft / aircraft component is considered ready for release to service.<br><input type="checkbox"/> Certifies that the work specified above, except as otherwise specified, was carried out in accordance with _____ and in respect to that work the aircraft / aircraft component is considered ready for release to service. |  |   |   |   |  |
| <input checked="" type="checkbox"/> TICK WHERE APPLICABLE  |  |   |   |   |  |
| REP. MANAGER   | CEO  | CEO   | CEO   | CEO   | CEO  |





# APPENDIX C

## 1) EMAIL TO P&WC

Gmail Che Nor Amari Husna Che Hassan <amari@galaxy aerospace@gmail.com>

**Fwd: [External] Re: Fw: 9M-PTB lightning strike CRM:08864000636**  
4 messages

**Nurul Husna Zainol Abidin** <nurh@galaxy aerospace.my>  
To: Che Nor Amari Husna Che Hassan <amari@galaxy aerospace@gmail.com>

Fyi

Regards,

**Nurul Husna Zainol Abidin**  
CAMO Planner  
for and on behalf of  
GALAXY AEROSPACE (M) SDN BHD



----- Forwarded message -----

**From:** Le Van Minh, Ivan P&WC <ivan.le@pwc.ca>  
**Date:** Fri, 13 Jan 2023 at 12:20  
**Subject:** RE: [External] Re: Fw: 9M-PTB lightning strike CRM:08864000636  
**To:** Nurul Husna Zainol Abidin <nurh@galaxy aerospace.my>  
**Cc:** azlan matip <azlan@galaxy aerospace.my>, Mohd Zamrun Mat Arif <zamrun@galaxy aerospace@gmail.com>, ZATY NADHIRA MOHAMED ZUHARI <zaty@galaxy aerospace.my>, Mission <mission@galaxy aerospace.my>

Thanks Nurul,

The tasks described EMM 72.00.00 ENGINE, TURBOPROP-- INSPECTION Para. 72. M -- Propeller Lightning Strike as below needs to be performed.

Kindly advise if they can be performed and feedback the findings when completed.



Regards,

Ivan LE

Manager - Field Support

Pratt & Whitney Canada

SALAYSA (Thailand, Cambodia & Vietnam)

Mobile: +6 012 646 4284

email: ivan.le@pwc.ca

For 24-hour Global Service:

Customer First Centre (CFC#6)

Tel: +1 450 647 8000

email: cfc6@pwc.ca



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**From:** Nurul Husna Zainol Abidin <nurh@galaxy aerospace.my>  
**Sent:** 13 January 2023 09:27  
**To:** Le Van Minh, Ivan P&WC <ivan.le@pwc.ca>  
**Cc:** azlan matip <azlan@galaxy aerospace.my>, Mohd Zamrun Mat Arif <zamrun@galaxy aerospace@gmail.com>, ZATY NADHIRA MOHAMED ZUHARI <zaty@galaxy aerospace.my>, Mission <mission@galaxy aerospace.my>  
**Subject:** [External] Re: Fw: 9M-PTB lightning strike CRM:08864000636

Dear Ivan,

Kindly find the the TSN750 and CSNCSO of the affected engine SN as below details:

Aircraft registration: 9M-PTB

Engine #1  
Serial Number: PCE-PK1160  
TSN: 2070.45 FH  
TBO: -  
CSN: 1541  
CSO: -

Engine #2  
Serial Number: PCE-PK0270  
TSN: 5893.06 FH  
TBO: 2273.90 FH  
CSN: 3558  
CSO: 1161

Regards,

**Nurul Husna Zainol Abidin**  
CAMO Planner  
for and on behalf of  
GALAXY AEROSPACE (M) SDN BHD



On Fri, 13 Jan 2023 at 08:49, Mohd Zamrun Mat Arif <zamrun@galaxy aerospace@gmail.com> wrote:

Sent from my phone

----- Original message -----  
**From:** azlan matip <azlan@galaxy aerospace.my>  
**Date:** Thu, 12 Jan 2023, 18:55  
**To:** Mohd Zamrun Mat Arif <zamrun@galaxy aerospace.my>  
**Subject:** Fwd: 9M-PTB lightning strike CRM:08864000636

----- Forwarded message -----  
**From:** Le Van Minh, Ivan P&WC <ivan.le@pwc.ca>  
**Date:** Thu, 12 Jan 2023, 10:44  
**Subject:** 9M-PTB lightning strike CRM:08864000636  
**To:** azlan@galaxy aerospace.my <azlan@galaxy aerospace.my>

Hello Azilah,

**CRM case reference number #WC-24416-8718**

Thank you for reporting the lightning strike event which occurred on 9A-PTB. Kindly advise the affected engine SR, the TSN/TSO and CSN/CSD.

You may refer to EMM 72.00.00 ENGINE, TURBOROP – INSPECTION Para. 12. M – Propeller Lightning Strike as below for the action steps to be taken.

Kindly feedback the findings when completed.

Regards,

Ivan LE

Manager - Field Support  
 Pratt & Whitney Canada  
 MALAYSIA (Thailand, Cambodia & Vietnam)

Mobile : +0 012 648 4264  
 email : ivan.le@pwc.ca

For 24-hour Global Service

Customer First Central (CFirst)

Tel : +1 450 847 8000  
 email : cfirst@pwc.ca

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Che Nor Amari Husna Che Hassan <amari.galaxy aerospace@gmail.com>  
 To: sofiana.galaxy aerospace@gmail.my

27 January 2023 at 12:15

FYI  
 [Deleted text hidden]

Che Nor Amari Husna Che Hassan  
 CAMD Technical Services  
 An aviation division of  
 GALAXY AEROSPACE (M.S) Sdn Bhd

image.png  
 [Deleted text hidden]

Mail Delivery Subsystem <mailer-daemon@googlemail.com>  
 To: amari.galaxy aerospace@gmail.com

27 January 2023 at 12:14



# APPENDIX D

## 1) EMAIL TO TEXTRON AVIATION

1/27/23, 2:36 PM Gmail - AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT



Mohd Yasir Shapuan <yasir.galaxy.aerospacem@gmail.com>

### AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

6 messages

Mohd Yasir Shapuan <yasir@galaxy.aerospacem.my> Mon, Jan 16, 2023 at 6:29 AM  
To: TMDC@txtav.com  
Cc: VPhilomin@txtav.com, HWimberly@txtav.com, CEaley@txtav.com, WLevy@txtav.com

Dear sir,

Aircraft Model: SKA B300 SKA 350  
Helicopter S/N: FL-593  
Customer Description: Royal Malaysia Police Air Operation Force  
Priority: AOG

We received a report from the pilot that the aircraft was struck by lightning during the landing approach. Information of event as follows:

At 1533hrs 11th January 2023 while descending from FL 260 through FL 230 at 15 NM before waypoint ADNUT, the pilot observed a lightning spark on the right propeller with a loud bang.

Post physical inspection was carried out and found as detailed in the report attached for your perusal. At the moment the aircraft under-going inspection of Unscheduled Maintenance Checks (Lightning Strike) as required in MM.

In the view of this, we seek your advise on any additional inspection that should be carried out for this occurrence?

Regards,

**Mohd Yasir Shapuan**  
Technical Services  
for and on behalf of  
**GALAXY AEROSPACE (M) SDN BHD**



Suite 11-14, Helicopter Centre, Malaysia International Aerospace Centre, Sultan Abdul Aziz Shah Airport, 47200 Subang, Selangor Darul Ehsan.  
Website : [www.galaxy.aerospacem.my](http://www.galaxy.aerospacem.my)  
[+60377347226](tel:+60377347226) [+60377347526](tel:+60377347526)

**PRELIMINARY RPT LIGHTNING STRIKE 9M-PTB.pdf**  
601K

Philomin, Victor <VPhilomin@txtav.com> Mon, Jan 16, 2023 at 8:35 AM  
To: Mohd Yasir Shapuan <yasir@galaxy.aerospacem.my>  
Cc: "Levy, Werner" <WLevy@txtav.com>, Team Structures APAC <StructuresAPAC@txtav.com>

Dear Yasir

Thank you for bring this to my attention, with the damage noted on the radome and flaps, you may use the SIRM for the standard airframe inspections and repair procedures alternatively

if you need further assistance you may contact Team Structures APAC, copied in, for advice.

<https://mail.google.com/mail/u/0/?ik=bb389fa968&view=pt&search=all&permthid=thread-a%3A-1146176013011981413&siml=msg-a%3A-1144...> 1/6

1/27/23, 2:36 PM Gmail - AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

For the damage on the propeller, refer to the appropriate propeller CMM for the inspection and damage limits (AMM 5-50-00 Table 608 – Inspection After Lightning Strike).

For the engines, refer to the PWC EMM for the inspection procedures.

Best Regards

Victor

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**Victor Philomin**

Field Support Representative, Singapore

[VPhilomin@txtav.com](mailto:VPhilomin@txtav.com)

M +65.9656.8637

**Textron Aviation / Textron Far East Pte Ltd**

6 Seletar Aerospace Heights Singapore 797545

**From:** Mohd Yasir Shapuan <yasir@galaxy.aerospacem.my>  
**Sent:** Monday, January 16, 2023 6:29 AM  
**To:** TMDC <TMDC@txtav.com>  
**Cc:** Philomin, Victor <VPhilomin@txtav.com>; Wimberly, Hallie <HWimberly@txtav.com>; Ealey, Cindy <CEaley@txtav.com>; Levy, Werner <WLevy@txtav.com>  
**Subject:** AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

Dear sir,

Aircraft Model: SKA B300 SKA 350

Helicopter S/N: FL-593

Customer Description: Royal Malaysia Police Air Operation Force  
Priority: AOG

We received a report from the pilot that the aircraft was struck by lightning during the landing approach. Information of event as follows:

At 1533hrs 11th January 2023 while descending from FL 260 through FL 230 at 15 NM before waypoint ADNUT, the pilot observed a lightning spark on the right propeller with a loud bang.

Post physical inspection was carried out and found as detailed in the report attached for your perusal. At the moment the aircraft under-going inspection of Unscheduled Maintenance Checks (Lightning Strike) as required in MM.

<https://mail.google.com/mail/u/0/?ik=bb389fa968&view=pt&search=all&permthid=thread-a%3A-1146176013011981413&siml=msg-a%3A-1144...> 2/6



1/27/23, 2:36 PM Gmail - AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT  
In the view of this, we seek your advise on any additional inspection that should be carried out for this occurrence?

Regards,  
**Mohd Yasir Shapuan**  
Technical Services

for and on behalf of  
**GALAXY AEROSPACE (M) SDN BHD**

[Quoted text hidden]

**Philomin, Victor** <VPhilomin@txtav.com> Mon, Jan 16, 2023 at 8:48 AM  
To: Mohd Yasir Shapuan <yasir@galaxyaerospace.my>

Dear Yasir

Team Structures APAC info.

If your inquiry requires immediate attention or is AOG, please call Team Structures APAC team line at [+65 6690 9777](tel:+6566909777) or contact the APAC Structures team member listed below:

**Joelle Chia** - [jchia@txtav.com](mailto:jchia@txtav.com)

[Structural Damage Report Form](#) - This form is required for all repair and service requests.

[Damage Reporting Guide](#) - Review our guide to prevent repair and service delays.

[Standard Repairs \(all models\)](#) - Review our list of Standard Repairs available.

Best Regards,

Team Structures APAC

**Textron Aviation**

+65.6690.9777 OFFICE TEAM LINE

[Structures@txtav.com](mailto:Structures@txtav.com) (US) | [StructuresEMEA@txtav.com](mailto:StructuresEMEA@txtav.com) (EMEA) | [StructuresAPAC@txtav.com](mailto:StructuresAPAC@txtav.com) (APAC)

[Seletar Airport \(WSSL\)](#) | [6 Seletar Aerospace Heights](#) | [Singapore, 797545](#) | [txtav.com](http://txtav.com)

**Levy, Werner** <WLevy@txtav.com> Mon, Jan 16, 2023 at 10:07 PM  
To: Mohd Yasir Shapuan <yasir@galaxyaerospace.my>  
Cc: "Philomin, Victor" <VPhilomin@txtav.com>

<https://mail.google.com/mail/u/0/?ik=bb389fa968&view=pt&search=all&permthid=thread-a%3Ar-1146176013011981413&siml=msg-a%3Ar-1144...> 3/5

1/27/23, 2:36 PM Gmail - AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

Good morning sir,

It is recommended that you inspect the airplane in accordance with the King Air B300 Maintenance Manual chapter 5-50-00, Table 608. Inspection After Lighting Strike.

**Werner Levy**  
Customer Service Engineer  
Team Turboprop Technical Support  
**Textron Aviation**  
316.517.4155 PHONE | [wlevy@txtav.com](mailto:wlevy@txtav.com)  
316.517.9355 TEAM TURBOPROP | [teamturboprop@txtav.com](mailto:teamturboprop@txtav.com)  
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**From:** Mohd Yasir Shapuan <yasir@galaxyaerospace.my>  
**Sent:** Sunday, January 15, 2023 4:29 PM  
**To:** TMDC <TMDC@txtav.com>  
**Cc:** Philomin, Victor <VPhilomin@txtav.com>; Wimberly, Hallie <HWimberly@txtav.com>; Ealey, Cindy <CEaley@txtav.com>; Levy, Werner <WLevy@txtav.com>  
**Subject:** AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

Dear sir,

[Quoted text hidden]

**TMDC** <TMDC@txtav.com> Wed, Jan 18, 2023 at 12:12 AM  
To: Mohd Yasir Shapuan <yasir@galaxyaerospace.my>  
Cc: "Philomin, Victor" <VPhilomin@txtav.com>; "Levy, Werner" <WLevy@txtav.com>; Team Turboprop Support <TeamTurboprop@txtav.com>

Let's ask Technical Support for help.

Technical Support, Can you please assist and reply to customer?

<https://mail.google.com/mail/u/0/?ik=bb389fa968&view=pt&search=all&permthid=thread-a%3Ar-1146176013011981413&siml=msg-a%3Ar-1144...> 4/5

1/27/23, 2:36 PM

Gmail - AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

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Aftermarket Publication Coordinator Specialist, in the Technical Manual Distribution Center for Beechcraft, Cessna, and Hawker Technical Publications

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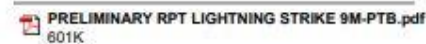


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**Sent:** Sunday, January 15, 2023 4:29 PM  
**To:** TMDC <[TMDC@txtav.com](mailto:TMDC@txtav.com)>  
**Cc:** Philomin, Victor <[VPhilomin@txtav.com](mailto:VPhilomin@txtav.com)>; Wimberly, Hallie <[HWimberly@txtav.com](mailto:HWimberly@txtav.com)>; Ealey, Cindy <[CEaley@txtav.com](mailto:CEaley@txtav.com)>; Levy, Werner <[WLevy@txtav.com](mailto:WLevy@txtav.com)>  
**Subject:** AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

Dear sir,

[Quoted text hidden]



**TeamTurboprop Support** <[TeamTurboprop@txtav.com](mailto:TeamTurboprop@txtav.com)>  
To: Mohd Yasir Shapuan <[yasir@galaxyaerospace.my](mailto:yasir@galaxyaerospace.my)>  
Cc: "Philomin, Victor" <[VPhilomin@txtav.com](mailto:VPhilomin@txtav.com)>

Wed, Jan 18, 2023 at 12:38 AM

Sir,

<https://mail.google.com/mail/u/0/?ik=bb389fa268&view=pt&search=all&permthid=thread-a%3Ar-1146176013011981413&siml=msg-a%3Ar-1144...> 5/6

1/27/23, 2:36 PM

Gmail - AOG!! SKA B300 SKA 350 (S/N: FL-593) - LIGHTNING STRIKE ON AIRCRAFT

Please follow the maintenance manual instructions.

**Werner Levy**

Customer Service Engineer

Team Turboprop Technical Support

**Textron Aviation**

316.517.4155 PHONE | [wlevy@txtav.com](mailto:wlevy@txtav.com)

316.517.9355 TEAM TURBOPROP | [teamturboprop@txtav.com](mailto:teamturboprop@txtav.com)

One Cessna Blvd. | Wichita, Kansas 67215 USA | [txtav.com](http://txtav.com)



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