***JAA/FAA/TCCA***
***International MRB Policy Board***
***Issue Paper***

***Date 24/05/2005***
***IMRBPB # 80***

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| **Title:** | Lightning/HIRF MSG-3 analysis process revision |
| **Submitter:** | The Boeing Company |
| **Issue:** | The current Lightning/HIRF MSG-3 analysis process 1) is limited to electrical and electronic equipment protection 2) does not include protection test or in-service data as part of the analysis 3) does not adequately address the use of Zonal Inspections Program for finding degradation of Lightning/HIRF protection. |
| **Problem:** | When applied to a new aircraft design, the current MSG-3 analysis process only selects maintenance for: 1) Level A electrical and electronic systems based on ED/AD analysis and are covered by zonal maintenance if a zonal inspection task is applicable and effective 2) Level B electrical and electronic systems based on similarity to existing aircraft and are covered by zonal maintenance if a zonal inspection task is applicable and effective. This methodology may result in an incomplete maintenance program and inappropriately rely on zonal inspections. |
| **Recommendation:** | An improved MSG-3 methodology for Lightning/HIRF has been recommended by the ATA Lightning/HIRF Task Force assembled in Seattle on July 19-21, 2005 with representation by FAA and TCCA, 6 manufacturers and 5 operators. Agreement was reached on a common approach (attached) with acceptance by all representatives on the Task Force. The new methodology 1) is inclusive of both electrical and non-electrical Lightning/HIRF protection 2) allows Zonal Inspections for protection with potential hazardous failure condition but not for Catastrophic 3) includes assembly of experience and test data (if available) for Lighting/HIRF components to identify either “no maintenance required” or applicable and effective maintenance recommendations. |

**IMRBPB Position:**

**October 20th, 2005**

The board is in favour for the working group to continue the work as launched with participation of all authorities.
However the following should be considered:
-Use of the terms catastrophic / hazardous to be reviewed
-Use of an assurance plan to be well defined and specified with goals and deliverables.

This IP remains open waiting the result of the industry work to be implemented in a revision to this IP

**Status: Open**

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**22/FEB/2007**

**Position:** Initial attachment 1 and 2 revised to include discussion and agreement and compiled in final attachment dated Feb 07.

**Status:** Closed based on final attachment to be added in MSG-3 rev 2007.1

**Important Note:** The IMRBPB positions are not policy. Positions become policy only when the policy is issued formally by the appropriate National Aviation Authority. (JAA, FAA or TCCA)