International Maintenance Review Board Policy Board (IMRBPB)

Issue Paper (IP)

IP Number: CIP IND 2019-08 (V1, 2)
Initial Date (DD/MMM/YYYY): 30/05/2019
Revision / Date (DD/MMM/YYYY): 04/03/2020
Effective Date (DD/MMM/YYYY):
Retroactivity (Y/N): N

Title:	Zonal Inspection Program Objectives
Submitter:	Gulfstream Aerospace

Applies To:	
MSG-3 Vol 1	X
MSG-3 Vol 2	X
IMPS	

Issue:

During MPIG SWG discussions, participants questioned the Zonal Inspection Program objectives. When revisiting the Structural MSG-3 methodology, questions about how each OEM would handle Other Structural Items were discussed and changes to the Structural methodology requires a comprehensive understanding of the Zonal Inspection Program objectives.

Problem:

Current Zonal procedure methodology does not specify what its objective is regarding the airworthiness and the reliability levels of the aircraft.

Recommendation (including Implementation):

Revise MSG-3 document Section 2-5 Zonal Analysis Procedure text as follows:

<u>FROM:</u>
2-5. Zonal Analysis Procedure
Zonal inspections may be developed from application of the Zonal Analysis Procedure. This requires a summary review of each zone on the aircraft and normally occurs as the MSG-3 analyses of structures, systems, and powerplants are being concluded. These inspections may subsequently be included in the Zonal Inspections.
This Zonal Analysis Procedure permits appropriate attention to be given to Electrical Wiring Interconnection Systems (EWIS). Thus, as well as determining zonal inspections, the logic provides a means to identify applicable and effective tasks to minimize contamination and to address significant EWIS installation discrepancies that may not be reliably detected through zonal inspection. These dedicated tasks may subsequently be included in the Systems and Powerplant tasks.
In top down analyses conducted under MSG-3, many support items such as plumbing, ducting, EWIS, other structure, etc., may be evaluated for possible contribution to functional failure. In cases where a general visual inspection is required to assess degradation, the zonal inspection is an appropriate method.

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TO:

2-5. Zonal Analysis Procedure

~~Zonal inspections may be developed from application of the Zonal Analysis Procedure. This requires a summary review of each zone on the aircraft and normally occurs as the MSG-3 analyses of structures, systems, and powerplants are being concluded.~~

Zonal methodology is a means to assess all aircraft zones to look for degradation, damage or failures of any item including plumbing, ducting, EWIS, other structure, etc. As a consequence, a set of tasks may be developed to maintain the inherent safety and reliability levels of the aircraft throughout its operational life, in an economical manner. These inspections may subsequently be included in the Zonal Inspections.

~~This Zonal Analysis Procedure permits appropriate attention to be given to Electrical Wiring Interconnection Systems (EWIS). Thus, as well as determining zonal inspections, the logic provides a means to identify applicable and effective tasks to minimize contamination and to address significant EWIS installation discrepancies that may not be reliably detected through zonal inspection. These dedicated tasks may subsequently be included in the Systems and Powerplant tasks.~~

~~In top-down analyses conducted under MSG-3, many support items such as plumbing, ducting, EWIS, other structure, etc., may be evaluated for possible contribution to functional failure. In cases where a general visual inspection is required to assess degradation, the zonal inspection is an appropriate method.~~

It is normally applied at the time of MSG-3 analyses of structures, systems, and powerplants are being concluded since there is then an opportunity for tasks identified from these analyses to be agreed as fully covered by zonal tasks.

In addition, this Zonal Analysis Procedure permits appropriate attention to be given to Electrical Wiring Interconnection Systems (EWIS). Thus, as well as determining zonal inspections, the logic provides a means to identify applicable and effective tasks to minimize contamination and to address significant EWIS installation discrepancies that may not be reliably detected through zonal inspection. These dedicated tasks may subsequently be included in the Systems and Powerplant tasks.

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IMRBPB Position:	
Date:	
Position:	
Recommendation for Implementation:	

Status of the Issue Paper:	☐	Active
	☐	Incorporated in MSG-3 / IMPS (with details)
	☐	Archived