

International Maintenance Review Board Policy Board (IMRBPB)

Issue Paper (IP)

IP Number: CIP IND-2019-07 (V1, 2)

Initial Date (DD/MMM/YYYY):

Revision / Date (DD/MMM/YYYY): 05/FEB/2020

Effective Date (DD/MMM/YYYY):

Retroactivity (Y/N):

Title:	CIC & CPCP clarification
Submitter:	Dassault-Aviation & Bell

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

Issue:

Some MRBR identified or may identify most of the ED tasks as “CPCP” tasks. In parallel some MRBR tasks are not tagged as “CPCP” even they could match with “CPCP” criteria. In order that “CPCP” tag copes with its initial intend, clarification is needed.

Moreover, during MPIG & SWG discussions, it appears that some clarification would be needed regarding Corrosion Inhibition Compounds (CIC) re-application and related scheduled maintenances tasks

The following extracts are given for information:

MSG-3 mentions:

- Corrosion Prevention and Control Program (CPCP) is considered in the evaluation of each Structural Significant Item (SSI) and every zone
- Corrosion Prevention and Control Programs (CPCP): A Corrosion Prevention and Control Program should be established to maintain the aircraft's resistance to corrosion as a result of systematic (e.g. age related) deterioration through chemical and/or environmental interaction. This Program applies to damage tolerant and safe-life structures.
- Corrosion Prevention and Control Program (CPCP): A program of maintenance tasks implemented at a threshold designed to control an aircraft structure to Corrosion Level 1 or better.

AMC 20-20 mentions:

- A corrosion prevention and control programme (CPCP) is a systematic approach to prevent and to control corrosion in the aircraft's Primary Structure.
- A Corrosion Prevention and Control Programme (CPCP) is a comprehensive and systematic approach to controlling corrosion such that the load carrying capability of an aircraft structure is not degraded below a level necessary to maintain airworthiness.

CPCP AAWG Guidance Document, Revision 2016.1 mentions:

- ATA's MSG-3 does not specify which structure is affected by CPCP as initially MSG-3 was designed to develop Environmental Damage analysis (ED) for SSIs. However, for practical reasons, the majority of MSG-3 programmes implemented CPCP inspection requirements as part of the MSG-3 analysis (as a complement of the ED analysis). CPCP review and inspection determination were then extended to

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Significant Structure Items. By considering the SSI definition from MSG-3 analysis to establish recent aircraft maintenance programmes, the Primary Structures and Fatigue Critical Structures have normally been considered with respect to the CPCP requirements. In conclusion: From a practical standpoint and in order to match current practices and active programmes, the AAWG recommendation is to consider the CPCP as applicable to the following:

1. Fatigue Critical Structures;
2. PSEs; and
3. Other Primary Structure on a case-by-case basis, as identified and published by the OEMs.

Problem:

MSG-3 document needs to clarify:

- Corrosion Inhibition Compounds (CIC) re-application and related scheduled maintenances tasks
- CPCP task selection criteria

Recommendation (including Implementation):

It is proposed to modify MSG-3 as follow:

1. Structural Maintenance Tasks

As part of the structural maintenance development procedure, applicable and effective structural maintenance tasks are selected for each deterioration process of the SSI.

...

Dedicated analysis procedures need to be developed and approved/accepted at the level of the PPH for such technology.

If Corrosion Inhibition Compounds (CIC) is applied during production, their re-application during in-service inspection could be required. The Manufacturer / the Structures Working Group should identify all ED tasks which may be impacted by CIC re-application. Information for CIC re-application should be included into MSG-3 task data sheet. These tasks should be identified as a CPCP task.

5. Corrosion Prevention and Control Programs (CPCP)

A Corrosion Prevention and Control Program should be established to maintain the aircraft [structure](#)'s resistance to corrosion as a result of systematic (e.g. age related) deterioration through chemical and/or environmental interaction. This Program applies to damage tolerant and safe-life structures.

The program is expected to allow control of the corrosion on the aircraft to **Corrosion Level 1** or better. The CPCP should be based on the ED analysis, assuming an aircraft operated in a typical environment. If corrosion is found to exceed Level 1 at any inspection time, the corrosion control

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program for the affected area must be reviewed by the operator with the objective to ensure Corrosion Level 1 or better.

Based on in-service data, operator experience and engineering judgment, the Structures Working Group or ISC should select the appropriate CPCP tasks.

Special care should be taken to ensure that tasks which cover CPCP requirements are properly identified in the MRB Report, including those transferred or consolidated in a different section than the Structure Section.

IMRBPB Position:

Date:

Position:

**Recommendation for
Implementation:**

**Status of the Issue
Paper:**

☒
☒
☒

Active
Incorporated in MSG-3 / IMPS (with details)
Archived