Issue Paper (IP)

IP Number: IP 204

Initial Date (DD/MMM/YYYY): 24/Jun/2022

Revision / Date (DD/MMM/YYYY): Rev. 0 / 24/Jun/2022

Effective Date (DD/MMM/YYYY): 01/Oct/2022

Retroactivity (Y/N): N

Title:	Removal of MRB and CMCC process coordination section from the MSG-3 document	Applies To: MSG-3 Vol 1 X MSG-3 Vol 2 X
Submitter:	MPIG	IMPS

Issue:

The interface of the MRB and CMCC processes is not dependent upon the MSG-3 methodology and guidance should not be placed in the MSG-3 document.

Moreover, the current MSG-3 Section 2-3-8 (6) Certification Maintenance Requirements (CMRs) Section is outdated given the latest guidelines issued by some regulatory authorities.

Problem:

Current MSG-3 document does not reflect differences among regulatory guidance related to the CCMRs. Given that the CCMR/CMCC does not influence the application of the MSG-3 methodology, the description of the interface process should not be placed in the MSG-3 document.

It is recognized that the subject is currently under discussion amongst the certification authorities, in order to better harmonize the CMCC process. With the removal of this text from the MSG-3 document, the Systems MSG-3 analysis would be developed solely based on the MSG-3 methodology.

Recommendation (including Implementation):

1) Delete references to the CCMR/CMCC process in the MSG-3 Document Changes (Changed text in blue, removed text in red):

2-3-8. Systems/Powerplant Task Interval Determination

6. Certification Maintenance Requirements (CMRs)

In addition to those tasks and intervals established through MSG-3 analysis, scheduled maintenance tasks may arise within the certification process (e.g. from compliance with 25.1309.

A CMR is a required scheduled maintenance task, established during the design certification of the airplane systems as an operating limitation of the type certificate or supplemental type certificate. CMRs are a subset of the instructions for continued airworthiness identified during the type certification process. A CMR usually results from a formal, numerical analysis conducted to show compliance with the requirements applicable to catastrophic and hazardous failure conditions. A CMR is intended to detect safety significant latent failures that would, in combination with one or more other specific failures or events, result in a hazardous or catastrophic failure condition. A CMR can also

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be used to establish a required task to detect an impending wear-out of an item whose failure is associated with a hazardous or catastrophic failure condition.

It is important to note that CMRs are derived from a fundamentally different analysis process than the maintenance tasks and intervals that result from MSG-3 analysis. The process for coordinating MSG-3 derived tasks with CCMRs involves a Certification Maintenance Coordination Committee (CMCC). The CMCC may influence the MWG's decision as per the flowchart (figure 2-3-8.6). This process provides an acceptable means to identify when a CMR designation may not be necessary if there is an equivalent MSG-3 task to accommodate the CCMR.

Flowchart Procedure (Figure 2-3-8.6.):

- 1. CMCC identifies the CCMR's from the Safety Analyses (SA).
- 2. CMCC determines if a MSG-3 defined safety category task exists that will detect the latent failure identified in the SA.
- 3. If a MSG-3 task does not exist, the CMCC will ask the ISC/WG if a reassessment of the MSG-3 analysis is possible to include a task, based on additional information provided by the SA report.
- 4. If the reassessment was performed, and a MSG-3 task generated, does that task meet the interval and scope of the CCMR? If the scope does not meet the intent of the CCMR, go directly to box 8.
- 5. If the reassessment was not performed, or if the reassessment did not generate a MSG-3 task, then the CCMR becomes a CMR.
- 6. The MSG-3 task is considered to properly cover the CCMR.
- 7. The ISC/WG may accept a CMCC proposed reduction in the MSG 3 task interval, in lieu of a CMR. ISC/WG should consider advantages and disadvantages of either. No change to scope should be acceptable.
- 8. If the ISC/WG does not accept the CMCC proposed change, then a CMR is established. The CMR and MSG-3 tasks remain independent.
- 9. If the ISC/WG accepts the CMCC proposed task, the revised MSG 3 task is considered to properly cover the CCMR.

[Comment] Current flowchart below to be deleted.

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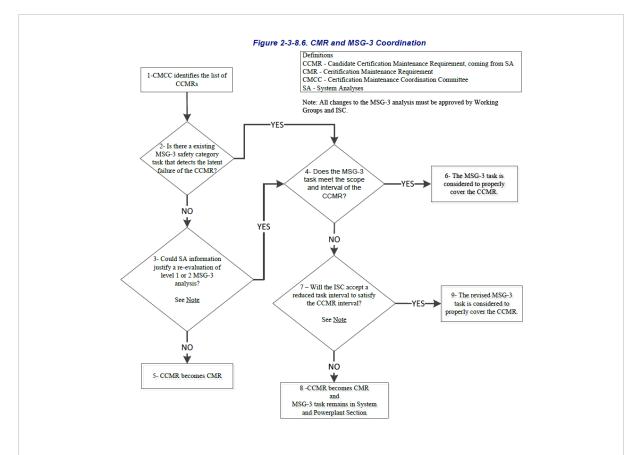
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- 2) Numbering of existing Section 7 shall be changed to 6: 76. Sampling
- 3) Numbering of existing Section 8 shall be changed to 7 only for Volume 2: 87. Controlled Service Introduction

NOTE: The original CIP proposal was submitted by Gulfstream and Archer.

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IMRBPB Position:				
Date:	24 June 2022			
Position:	Agreed, closed in 2022 meeting as IP 204			
Recommendation for Implementation:	As per effective date			
Status of the Issue	X	Active		
Paper:		Incorporated in MSG-3 / IMPS (with details) Archived		