

International Maintenance Review Board Policy Board (IMRBPB)
Issue Paper (IP)
Initial Date: 12 Jan 2012
IP Number: CIP TCCA 2012-01
Revision / Date: 21 Feb 2014

- Title:** Clarification of policy permitting the Consolidation of Tasks,
- Submitter:** Cliff Neudorf/Bruce Hawes (TCCA), Brent Bringle (FAA) & T Harbottle (Airbus)
- Issue:** Some OEMs are consolidating multiple tasks during the MSG-3 analysis process. Neither the MSG-3 document nor the IMRBPB have established guidance on what tasks may be consolidated and what tasks may not be consolidated. With reference to MSG-3 document Section 2-3-7, Task Development, there are concerns that while this section requires the identification and development of tasks to detect the degradation displayed by a particular failure cause, such tasks are subsequently being consolidated, possibly just because they have the same accomplishment interval and they are performed in the same zone. This is occurring despite the fact these tasks may be developed to address failure causes with vastly different forms of degradation.
- Problem:** Task consolidation may result in loss of traceability between the original MSG-3 Level 2 task requirement and the published MRB Report task. This may lead to operator in-service evolution of the task without full recognition, and therefore consideration, of all individual elements of the task. Since consolidated tasks may address failure causes with different forms of degradation there is a risk that appropriate justifications may not be determined for all elements. Furthermore, consolidation can lead to accomplishment issues relating to the licence requirement of the person performing the task.
- The MSG-3 document only refers to ‘consolidation’ in Section 2-5-1 in relation to Enhanced and Standard Zonal Analysis logic. It is apparent that some OEMs may have misinterpreted the MSG-3 term ‘combination’ to have the same meaning. For example, the Level 2 question ‘IS THERE A TASK OR COMBINATION OF TASKS APPLICABLE & EFFECTIVE?’ asks whether multiple tasks are applicable & effective and not whether a consolidated set of tasks is applicable and effective.
- During the completion phase of the MSG-3 Level 2 analysis for an MSI, analysts may have consolidated, into a single task, tasks that are designed to find widely varying failure causes.
- With reference to MSG-3 Section 2-3-7 Task Development (Second Level) such tasks are:
1. Lubrication / Servicing tasks (applicable to all failure effect categories)
 2. Operational / Visual Check tasks (applicable to hidden functional failures only)
 3. Inspection (GVI,DET,SDI) / Functional Check tasks (applicable to all categories)
 4. Restoration tasks (applicable to all FE categories)

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5. Discard tasks (applicable to all FE categories)
6. Combination of tasks (applicable to safety category tasks only)

The consolidation process practiced by the OEMs will at times combine *failure finding* tasks such as Operational Checks and Visual Checks with each other or with *potential failure finding* Inspection tasks or Functional Checks and may even mix any of these tasks with *failure avoidance* Lubrication or Servicing tasks.

The following is one example of such a consolidation exercise:

MSI 24-24 (Task Description)

FUNCTIONAL AND OPERATIONAL CHECK OF THE RAT,
DETAILED VISUAL INSPECTION OF RAT MECHANICAL
MECHANISM, OIL LEVEL VISUAL CHECK AND
LUBRICATION OF STRUCTURAL ATTACHMENTS.

In examining current PPHs, it appears that this problem stems from the fact that Regulatory Authorities have permitted OEMs to include within their Policy and Procedures Manuals guidance that permits the OEM to perform these types of consolidation.

For standardisation reasons, it would be preferable to include guidance within the MSG-3 document to detail when consolidation may be acceptable and when it is not acceptable.

The MRB Report is not a planning document and thus it is not an acceptable practice to consolidate tasks based solely on the fact that they have, at time of development, identical intervals and are performed in the same aircraft zones. Such consolidation is the responsibility of the operator when developing his maintenance program. An OEM can perform such consolidation in a maintenance planning document.

Within the MRB Report, the only systems & power plant tasks that may be consolidated are as follows:

- OP/OPC and VC/VCK
- tasks having the same two/three letter code

The value of such consolidations shall be agreed by the MWG/ISC before submittal to the MRB.

In cases where a technical (not planning) reason exists to require the performance of dissimilar types of tasks within the same maintenance event or in a particular sequence, a note to this effect shall be added in the MRB Report against the tasks.

Typical examples of this include cases where identification of individual tasks could lead to performance in either an inappropriate sequence or in different work packages, both potentially situations that would not be

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beneficial to the continued airworthiness of the component or sub-system, e.g.:

- 1) The Functional Check of a component includes operation over its full envelope. Degradation in the driven system is more likely to be detectable following such a check than at any other time. Detailed Inspections and lubricant replenishment are best scheduled immediately afterwards. Failure to do so leads to increased risk of function unavailability. Ram Air Turbine and Flap/Slat Wing-Tip Brakes are examples of such components.
- 2) Cases where access is complex and needs to be minimised to reduce the potential for inadvertent damage. Indeed, the WG may conclude that the task is only effective if it is performed at the same opportunity as another task that requires the same level of access.

The above text applies to tasks performed on-wing. If MSG-3 logic is used to define the minimum content of an off-aircraft task performed on an LRU (e.g. Restoration) then the resultant tasks, whatever their type, may be identified in the MRB Report within the description of the single high level task.

Association with IP077

This IP supersedes and replaces the earlier IP077. The new recommendation overrides the earlier IMRBPB decision that the practice of consolidating different task types is acceptable provided that there is a documented and auditable system to ensure traceability of the individual tasks.

In consideration of the earlier understanding, any task consolidation that has already been included in an approved MRB Report does not need to be revisited provided that the MRBR task title reflects all task types that have been consolidated and that the MSG-3 analyses include details of the individual tasks that were consolidated. However, no further consolidation shall take place in the future. In addition, PPHs should be updated as necessary to include details of the task consolidation policy that was used during the development of those MRBR tasks.

Recommendation (including Implementation):

- 1) The MSG-3 document be revised to address task consolidation (see modified paragraph 2-3-7.6 and new paragraph 2-3-7.8 below)
- 2) PPHs for existing MRB Reports are revised, as necessary, to include details of any task consolidation policy that has been employed. Where this policy could mean that operators do not have full visibility of the individual task types, at the opportunity of an MRB Report revision the OEM is requested to update the task title to refer to each task type.

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- 3) From the closure of this Issue Paper no further consolidation of tasks shall be permitted beyond that stated in new paragraph 2-3-7.8. There is no requirement to retroactively split consolidated tasks that have previously been found acceptable.

Proposed change to MSG-3:

Modify:

2-3-7.6 Combination (Safety Categories only)

QUESTION 5E, 8F:

IS THERE A TASK OR COMBINATION OF TASKS APPLICABLE AND EFFECTIVE?

Since this is a safety category question and a task is required, all possible avenues must be analyzed. To do this, a review of the task(s) that are applicable is necessary. From this review the most effective task(s) must be selected. **If multiple tasks are selected these may only be consolidated in accordance with Para 2-3-7.8.**

Add:

2-3-7.8 Task Consolidation

Task consolidation is normally not acceptable when establishing the initial scheduled maintenance tasks and intervals. If considered appropriate, it shall be limited to:

- failure finding tasks (OP/OPC and VC/VCK)
- tasks having the same two/three letter code.

If tasks of different types, other than OP/OPC and VC/VCK, are required to be performed during the same maintenance event then they shall be linked by a note to this effect rather than being consolidated into a single task.

It is proposed to include a definition of 'Consolidation' and 'Combination' in Appendix A, Glossary:

Consolidation: The amalgamation of one or more tasks into a single task. Consolidated tasks may contain tasks derived from one or more analysis dossiers

Combination: The identification of multiple tasks to address a single functional failure

IMRBPB Position:

Date:

Position:

Status of Issue Paper (when closed state the closure date):

Recommendation for implementation

Important Note: The IMRBPB positions are not policy. Positions become policy only when the policy is issued formally by the appropriate National Aviation Authority

IP Template Rev 2, dated 22/02/2007