

2018 IMRBPB Meeting Summary

April 23–27, 2018

Shanghai, China, hosted by the Civil Aviation Administration of China (CAAC)

References:

Pre-Meeting Package can be downloaded from the IMRBPB website, or directly from the following address:

<https://www.easa.europa.eu/sites/default/files/dfu/2018%20IMRBPB%20Meeting%20Package%20-%20Rev%201%20-%205Apr18.zip>

Candidate Issue Papers (CIPs)

The following CIPs were discussed, with the following decisions:

A – CIP ANAC-2017-01 – Applicability and interval determination of failure-finding Functional Checks or Inspections

After CIP was presented and discussed, participants agreed that it identifies an issue that exists and needs to be fixed. The solution proposed, however, including a new revision to the CIP presented during the meeting, is recognized as not being ideal. Though technically correct, the proposed solution would require deeper knowledge and experience with MSG-3 in its application, and it could discourage new adopters of the methodology.

The suggestion of a simpler solution was given, in the form of a change to the definition of Operational Check to allow measurements to be made with a failure-finding intent. The counter argument was presented that it would solve the issue only partially, since the issue may remain for Visual Checks versus Inspections.

The submitter (ANAC) agreed to look for a different solution to the issue with the support of the industry group, and consider re-submitting a revised paper for the next cycle.

DECISION: Not agreed.

B – CAAC-2018-01 – Use of SMR instead of MRBR/MTBR

CIP was presented, answers to comments sent by the MPIG were presented.

One item of discussion was the ownership of the MRBR. IMRBPB IP 014 was mentioned as one that clarifies such ownership. It was further clarified that in the abbreviation “MRBR”, “MRB” stands for the MRB process rather than the MRB body.

About changing the designation of MRBR/MTBR to SMR, that was identified as being of significant impact. In many cases, SMR has a broader scope than that of MRBR/MTBR, also in some regulatory frameworks MRBR is explicitly mentioned as being the basis for the development of a maintenance program.

After clarifications were agreed upon, submitter (CAAC) decided to withdraw the CIP, so no decision applies.

In the context of this discussion, MPIG commented that they do appreciate the idea of moving towards having a single repository of scheduled maintenance information, as opposed to

having to handle a collection of multiple documents, and highlighted that SMDS may be an initiative that is going in that direction.

DECISION: No decision applicable (CIP withdrawn)

C – EASA-2018-01 – Task Data as part of the MSG-3 Dossiers

CIP was presented and discussed. One concerns identified were to the level of detail of the information that should be recorded. Another concern identified was that this should not be confused with task validation.

To address those concerns a revised CIP was worked during the meeting, presented and agreed upon.

DECISION: Agreed as revised, published as **IP 176**, rev 0, 27 Apr 18.

D – EASA-2018-02 – Efficiency in the MRB process – Delegation to the TCH

CIP was presented and discussed. Concerns were raised with regards to the scope of a delegation, the criteria for a delegation, the effects on the CA/VA relationship a delegation might have, since authorities have among themselves significantly different approaches as to how and what can be delegated.

A comment was made that the multiplicity of “voices in the room” is key to a successful MRB process, and that delegation, even in the context of a competent and trustworthy organization, might eliminate that important element.

The group does recognize that the MRB process is very costly, and initiatives are being taken towards reducing it (and harmonization of the processes through IMPS are intended to go towards it); what is not agreed upon is that a reduced regulatory participation (even though with proper criteria) would be an acceptable means for cost reduction.

A harmonized concept was reached, as not all authorities have compatible regulatory framework with the contents of CIP, and it was not agreed upon.

DECISION: Not agreed.

E – CIP EASA-2018-03 Implementation of “Retroactive” IMRBPB Issue Papers

CIP was presented and discussed. Concerns were raised as to enforcing retroactive adoption of IPs, which is not legally enforceable in many regulatory frameworks without a correspondent change in regulation itself. In that context, the need for a “retroactive” classification was even challenged. It was said that the identification of an IP as retroactive would act as a quick indication of its relevance, even though it was noted that the IP will usually bear a recommendation for implementation, which would address its relevance as well. It was also mentioned that, the IMRBPB being a voluntary board, IMRBPB statements cannot have binding language.

Not all authorities have compatible regulatory framework with the contents of CIP, and it was not agreed upon.

DECISION: Not agreed.

F – CIP FAA-2017-03 – Use of Engine Condition Monitoring Update

CIP was presented and discussed. A few adjustments on the wording and a few clarifications were suggested. A revised proposal was presented and agreed upon.

DECISION: Agreed as revised, published as **IP 177**, rev 0, 27 Apr 18.

G – CIP FAA-2017-09 – Time Limited Dispatch (TLD) Task Interval Consideration

CIP was presented and discussed. Clarification was requested with regards to identification of latent failures, which was answered that these would be identified after querying the computer. Concern was expressed regarding the possibility of dual interpretation of the expression “TLD interval”, that could either mean the time for interrogating the computer or the time for correction of the issue. It was clarified that the intent is the monitoring part, the interval for the interrogation sequence.

Suggestions for the text were given and a revised CIP was proposed and agreed upon.

DECISION: Agreed as revised, published as **IP 178**, rev 0, 27 Apr 18.

H – CIP IND-2016-01 – Wear Damage Detection Task

CIP was presented and discussed. There was a question as to whether the wear tasks would be listed in the system section or structures section, and the concern that the task coming from following the systems logic, if listed in the structures section would have their FEC lost. It was clarified that the CIP is not defining in which section the task will be listed, but proposing that an SDI might be selected with the purpose of identifying wear. After clarifications, CIP was agreed upon, with no changes to original text.

DECISION: Agreed as initially proposed, published as **IP 179**, rev 0, 27 Apr 18

I – CIP IND-2017-03 – Aircraft Health Monitoring Integration in MSG-3

CIP was presented. The amount of work and collective effort put in the development of this CIP was highlighted, as well as its importance.

Main points arisen in discussion:

- 1) CIP does not propose performing the “Level 3” analysis for those systems that do have the monitoring capability, but for which a “classic” task was not selected. The argument is that this would deviate from current MSG-3 philosophy, considering the hypothesis that there may still be an applicable and effective AHM task where an applicable and effective “classic” task was not found that would fit the MSG-3 philosophy.
- 2) The criteria for taking credit of the monitoring capability, with regards to certification of the system, is still undefined.
- 3) Whether requirements for the readout of the data that need to be manually retrieved should be published as separate requirements, whenever applicable.
- 4) Difficulty on the evaluation of cost-effectiveness on a per-task basis, considering a significant portion of the cost is in implementing and maintaining the complete AHM system, rather than adding one monitoring task to it.

Even though not all of the expressed concerns were considered addressed to satisfaction by all members, CIP was considered sufficient for initial steps and conversations towards incorporating AHM into the MSG-3 logic, though not mature enough to be applied as a revision to the MSG-3 document and it should be, instead, a standalone IP.

The CIP was agreed upon and accepted; a few conditions for adoption of the CIP were expressed in the “Recommendation for Implementation” section of the IP. Adoption of the IP under those conditions is expected to generate relevant feedback for the refinement of the

methodology, looking to its future incorporation into the 2021 revision of the MSG-3 document.

After the meeting, a few revisions to the agreed text were submitted to the IMRBPB by IATA, for improvement in clarity, with no effect in the agreed process. The proposed changes were distributed by e-mail, evaluated and agreed upon by all members.

DECISION: Agreed as revised, published as **IP 180**, rev 0, 27 Apr 18

J – CIP IND-2017-02 – Clarification on Restoration Tasks Scope

The CIP was presented and discussed. Industry mentioned there was feedback from operators looking for guidance and expressed concerns over turning CMMs into ICAs and having the TCH responsible for the CMM content. The Policy Board expressed the position that the proposal goes beyond the scope of MSG-3, and that the TCH should ensure the proper information is conveyed from the WG to the vendor. CIP was not agreed upon.

DECISION: Not agreed.

K – CIP RMPIG IND-2017-01 – Deletion of Note in §2.3.1-2 of MSG-3 Volume 2

CIP was presented and no comments were made.

DECISION: Agreed as submitted, published as **IP 181**, rev 0, 27 Apr 18

L – CIP RMPIG IND-2017-02 – Traceability during Consolidation

CIP was presented and discussed. Initial proposal was made as being applicable only to MSG-3 Vol 2, however after discussions the group determined there were parts that should be made applicable to MSG-3 Vol 1 as well. Also, part of what was being initially proposed was considered part of the normal MRB process and revisions were suggested.

DECISION: Agreed as revised, published as **IP 182**, rev 0, 27 Apr 18

M – CIP RMPIG IND-2017-03 – Corrosion Prevention for Rotorcraft

CIP was presented and discussed. It was generally agreed; however, there was the suggestion that it should be made applicable to MSG-3 Vol 1 as well. No determination was done at the meeting and an action was taken to evaluate applicability to Volume 1 for the next cycle.

DECISION: Agreed as revised, published as **IP 183**, rev 0, 27 Apr 18

ACTION: MPIG took action to evaluate applicability to volume 1 in the next cycle

N – CIP RMPIG IND-2017-04 – Correct Transcription of ED in Supplemental Analysis

CIP was presented and no comments were made. Only a minor typo correction was performed.

DECISION: Agreed as revised, published as **IP 184**, rev 0, 27 Apr 18

O – CIP IND-2017-04 Handling of Pressure Cylinders within MSG-3

CIP was presented and discussed. After initial comments, Industry took the paper back and proposed a revised version, identified as rev 1, Apr 26. IMRBPB was in general agreement that hydrostatic tests might not be effective. There were dissenting opinions as to whether sudden

rupture should be considered an unrealistic failure mode; still, IMRBPB agreed there is positive service experience, and that harmonization should be sought. Paper would be classified as non-retroactive, but it was generally understood that it could be sought for application on existing programs on a voluntary basis.

DECISION: Agreed as revised, published as **IP 185**, rev 0, 27 Apr 18

P – CIP IND-2018-01 Efficiency in the MRB process – Delegation to the TCH

CIP was presented and discussed. It was discussed generally in conjunction with CIP EASA-2018-02, sharing the same title.

Industry manifested their concerns that, if changes in this direction wouldn't occur, the MRB process might become impracticable.

IMRBPB expressed concerns with the direction being followed, and that, as an example, removing operators from the process could end up being the next step towards reducing the cost of the MRB process.

IMRBPB clarified there are several initiatives in place trying to reduce the cost of the MRB process, the IMPS adoption being one, allowing mutual acceptance from authorities; use of technology to conduct virtual meetings...

IMRBPB conveyed the position that references to Regulatory Authorities should be removed from the paper. IMRBPB mentioned that some flexibility could be considered to applicability criteria in IMPS, or with regards to operators participation in the MRB as long as there are compensating measures (involving other people from OEM, vendor...). Also for consideration, a few classical systems might still make use of a "boilerplate" analysis, systems that have a predetermined outcome.

MPIG clarified that, with this proposal, all the material will still be provided to the WG, it just wouldn't be discussed, and then it would be discussed at ISC level. Room exists for the WG members to make comments to the dossiers that wouldn't be discussed. FAA expressed concerns with the ISC being overloaded with work that should have been done by the WG.

MPIG clarified it is still being ensured that all three groups are involved in the process, but understands that there would be no added value to have 100% of the discussions with 100% of the people in all the items in this process.

DECISION: Not agreed. MPIG withdrawn the CIP for further work.

Note: IMRBPB signaled that would be interested in reconsidering this paper with more specific guidance on how this should be handled in a consistent manner among OEMs, looking for limitations to be established that would allow going forward with the procedures (such as reduced scope of application, limited to non-safety tasks). IMRBPB agrees in general that better efficiency of the MRB process should be sought, as long as properly managed.

Discussion topics

A few topics were brought to discussion, not related to a specific CIP. No decisions were made, they were presented as topics that might be further explored in the future.

Risk Management in MRB/MSG-3 Processes

A presentation was performed by EASA, showing the result of an activity performed in conjunction with FAA, a purely theoretical exercise. It was clarified that no CIP was being proposed and that there was no timeframe envisioned for such. It was presented as being a possible starting point for a future Working Group that could investigate the possibility of introducing risk management principles in conducting the MRB process and following the MSG-3 logic.

Coverage for FDR/CVR in MSG-3

The handling of FDR/CVR in MSG-3 was brought up to discussion. Argument presented is that current handling is not quite consistent with the overall safety purpose of these devices. If in one hand their effect in the flight itself is minimum, proper preservation of their function has a significant effect in the aviation system.

Administrative topics

IMRBPB Management

IMRBPB informed all participants of that elections were held for the IMRBPB Management positions for the next 3-year cycle. The outcome is as follows:

IMRBPB Chairperson: Richard Todd Perry, FAA

IMRBPB Co-chairperson: Raffaele Iovinella, EASA

IMRBPB Secretary: Jimmy Leung, HKCAD

Next Meeting

Next meeting will be held in Ottawa, Canada, in the week of May 6th, 2019, hosted by TCCA. Meeting location yet to be confirmed.

Final considerations

Final considerations were presented by participants, and meeting was adjourned.