**Title:** “Tolerances” or “ Windows” in MRBR’s

**Submitter:** Regulatories

**Issue:** There’re currently several MRBR’s (mainly for Business Jet A/C) in which some guidance for tolerance in the scheduling of the maintenance activity is provided: the so called “Tolerance Windows”.

Some TCH’s (specially Business Jets manufacturers) include in their MRBR provisions to let Operators take benefit of a tolerance in the scheduling of the maintenance activity in order to have some flexibility in the performance of the tasks.

In the past, after long discussion and justification, these guidance were accepted by regulatory and introduced in various MRBR mainly for the benefit of small operators.

**Problem:** Despite already implemented and supported by regulators, this practice has been challenged in 2012 and brought to the agenda of the 2012 PB regulatory WG.

During December 2012 Policy Board meeting, it has been discussed and argued that the “Tolerances” or “Windows” should not belong in an approved MRBR, but is rather an Operators issue (Part M or equivalent) directly related to scheduling of the maintenance activity.

In order to enforce this position, FAA did issue on Jan the 14th, 2013; a Memorandum title “Policy Clarification Memo “windows” in Maintenance Review Board Reports (MRBR).”

On this basis the CIP EASA 2013-01 has been proposed by EASA and discussed at the 2013 IMRBPB with the following statement :

“ The PB Chair confirmed the PB position on this CIP and advised the group that the CIP will be further developed by the Board, taking applicability and retroactivity into consideration. The paper will then be submitted for a future meeting. “

PB position is: CIP to remain open. And the Action Item AI 13/11 is opened for EASA to further develop this CIP.

In September 25, 2013 a TCH sent a letter to FAA requesting FAA to postpone AFS 300 Policy memo until IMPRBP makes a final decision.

After further detailed review it appears that operational requirement in EASA / TCCA and FAA regulation all today accepted tolerances to be used at the level of the operator and local regulatory authorities.

All regulation generally allows a tolerance of 10% of the applicable task interval not to exceed 500 hr /cycles.

Such a tolerance is not necessary considered during the normal task interval definition in an MSG 3 analysis. In addition during an evolution exercise the new extended interval is defined on IP 44 basis not taking into account that in addition 10 % may be used by an operator.

Existing regulatory operational regulation provide more guidance for commercial operators using reliability programs allowing them to develop real individual and adjusted operators maintenance program .For non-commercial operators or small operators guidance are usually less detailed and adapted to the size and context of operation.

Large aircraft are usually used with commercial operators fleet with reliability program large amount of data and important support (engineering, software…). The tolerance aspect is addressed in a complex and full process allowing better management and control.

For rotorcraft and business aircraft operators may often operates only one aircraft or a reduce and different fleet with reduce number of data and limited means. Limited guidance may lead to unsafe conditions.

In addition their operators maintenance programs are directly based on MRBR where clear guidance regarding any tolerances used may ensure better safe approach.

In addition as stated in previous paragraph; MSG 3 analysis may not necessarily adequately considered any further tolerances used by operators.

Therefore to cover this aspect some business and rotorcraft manufacturer considered this aspect during the development of the MRBR at the MSG 3 analysis level to provide clear and safe guidance to small operators and prevent any unsafe situation.

**Recommendation (including Implementation):**

Base on various discussion taking place the following is recommended.

For rotorcraft or business aircraft, considering the specific operational conditions of the product; tolerances / permitted variation may, as already done in the past, be considered as acceptable in MRBR, and under the following conditions:

1/ Such consideration must be addressed from the beginning at the ISC level and accepted by the ISC and approving regulatory.

2/ Management and rules for the consideration of tolerances/ permitted variation must be explained and detailed in the PPH

3/ required traceability should be ensured in MRB process.

4/ A text in the MRBR must provide clear guidance’s about limits, used , rules (cumul for ex..) of such tolerances / permitted .

5/Criticality of the task should be considered.

**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.