Title: Further advanced definition of Structural Health Monitoring (SHM)/Addition to MSG-3.

Submitter: Joint Industry Proposal (Airbus, Boeing, Bombardier, Embraer, Gulfstream)

Issue: The current MSG-3 document does not sufficiently address automated Structural Health Monitoring (SHM) application scenarios.

Problem: Currently, automated SHM system functionality is not recognized in MSG-3 document, thus the potential to increase structure monitoring by automated SHM use cannot be utilized to full extent.

Recommendation (including Implementation):

Vision of the SHM revision inputs to be added to the intro section of the CIP: This is a continuation of the work initiated with IP92 in order to address considerations of technology potential that already exists today, even if it is recognized that this may be limited in respect of current fully developed application scenarios.

The ATA MSG-3 SHM Working Group recommends to extent the SHM considerations within the MSG-3 document System Section, Structure Section and Appendix A, Glossary in order to address SHM technology with advanced capabilities further to those defined with IP92 for Scheduled Structural Health Monitoring (S-SHM). Please refer to the detailed change proposal provided in a dedicated document (CIP 2009-1 rev1oct09-MSG-3 proposed amendment.doc)
IMRBPB Position:

Date: 29/04/2010

Position:

IMRBPB fully supports the development of MSG 3 process for SHM systems.
The proposal as attached appears to be a good starting point.
However the development of this type of logic analysis for SHM, must be validated by various
OEM’s on their applicable SHM systems to ensure the effectiveness of the applicable
methodology.
Once the IMRBPB can validate such an analysis process as being applicable and effective, a
revision to MSG 3 will then be accepted.
This does not prevent a TCH, on a voluntary basis, to introduce this proposal in its PPH, with
approving authority’s agreement, to apply this proposal in the frame of the validation.

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

Closed: 29/04/2010

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.