

**2010 IMRBPB Regulatory & Industry Meeting Singapore Aviation
Academy 28 – 30 April 2010**

List of attendees Policy Board Members Present:

Mr. Francis Jouvard	EASA – IMRBPB Chairman
Mr. Gary Goodwin	FAA
Mr. John Fox	FAA – IMRBPB Secretary
Mr. Michael Pang	CAAS – Meeting Secretary
Mr. Don Levesque	FAA
Mr. Mark Fletcher	FAA
Mr. Mark Zimmermann	EASA
Mr. Raymond Hung	HKCAD
Mr. Jeff Phipps	TCCA
Mr. Cliff Neudorf	TCCA
Mr. John Glavind	TCCA
Mr. Kong Cheong Tuck	CAAS
Mr. Lian Wee Cheong	CAAS
Mr. Xue ShiJun	CAAC
Mr. Wang Jin	CAAC
Mr. Bao JianBo	CAAC
Mr. Liang Gang	CAAC
Mrs. Fan Jingzhu	CAAC
Mr. Masao Yoshida	JCAB
Mr. Masaki Tabata	JCAB
Mr. Kiyoshi Samata	JAXA
Mr. Takao Okada	JAXA

**Absent with
Apology:**

Mr. Lynn Pierce	FAA – IMRBPB Co- Chairman
Mr. Jose Meirelles	ANAC
Mr. K.C. Man	HKCAD
Mr. Rick Leeds	CASA
Mr. Victor RASPERTOV	IAC AR

List of attendees MPIG Members Present:

Mr. Tony Harbottle	Airbus
Mr. Lorenz Wenk	Airbus
Mr. Brian McLoughlin	Boeing
Mr. Jason Onorati	Boeing
Mr. Peter Osborne	Bombardier
Mr. Zoran Jovanovic	Bombardier

Mr. Joel Maisonnobe	Dassault Aviation
Mr. Luis Gustavo dos Santos	Embraer
Mr. Shoji Kawakami	Mitsubishi Aircraft Corporation
Mr. Joakim Sandberg	SAAB
Mr. Anton Belofastov	Superjet International
Mr. Bernard Schuster	328 Support Services
Mr. Brian Jenkins	Bell Helicopter
Ms. Lisa Conrad	American Airlines
Mr. Kazuo Matsuura	All Nippon Airways
Mr. Kevin Berger	FedEx
Mr. Yun WANG	XAC
Mr. Mark Lopez	Air Transport Association
Mr. Paul Conn	Air Transport Association
Mr. Richard Anderson	EmpowerMx

Wednesday April 28th 2010

Introduction

1. Chairman welcomes all 2010 IMRBPB Meeting participants - policy board (PB) members, MIPG members and other industry representatives.
2. 2010 IMRBPB Meeting participants introduced themselves
3. Review the changes to the charter.
4. List of contacts reviewed and updated. This revision number to list will be # 12
5. 2009 Brazil meeting minutes opened and no comments from industry. Minutes accepted.
6. Chairman updated the PB that Carol Giles from AFS-300 will replaced Lynn Pierce. Ms Carol Giles regrets she was unable to attend this meeting and asked Mr Gary Goodwin to represent her during the meeting.
7. Review the Action Item List , there are four open items;
 - a) 05/05 :all agreed closed today with presentation by industry of the 3 CIP today
 - b) 08/01: reviewed this item, still in work getting the NAA reference to the list , still in work , should be able to find four ref on this list , FAA,EASA,TCCA and CAAC.
Remains open
 - c) 08/03 IP 44, Tony (Airbus) wants to leave open until industry gives its presentation. On IP 44 the PB agrees and will waits to close.

Remains open

- d) 08/04 Industry to invite IMRBPB to development of a single data base. Tony still working on this, no due date as of yet opened till 2011.
- I. **Note:** Single data base status provided by Tony Harbottle of Airbus; last dedicated meeting cancelled due to volcanic ashes issue; the policy board will be kept informed for any further development

Remains open

8. Chairman reiterated that all new Issue Papers (IPs) submitted by MIPG members shall be submitted through MPIG Chairman. Similarly, authority IPs shall be submitted through IMRBPB Chairman.
9. Review of the Issue Paper index.
10. Feedback from regulatory meeting the last two days;
- a) All IP's/CIP's stated on agenda have been discussed to be further agreed upon the next days
 - b) Charter update
 - c) Nothing special
11. Feedback from industry;
- a) All IP's/CIP's stated on agenda have been discussed to be further agreed upon the next days
 - b) Numbering of IP/CIP should be harmonised to make it clearer
 - i. It was therefore agreed to have the following scheme:
 - ii. Industry: CIP IND 2010-xx
 - iii. Regulatory: CIP REG 2010-xx; xx being sequence numbers
 - iv. IP management procedures have been updated accordingly
 - v. Francis wants to put industry, FAA or EASA Etc and then year and sequence number. All agree.
 - vi. The IP management procedures have been updated accordingly now revision # 3 dated April 28, 2010.
 - c) Tony has concerns that only IP that have been agreed by MPIG and PB be placed on the EASA website. The EASA IP website shows some documents which have not been officially released to be used outside MPIG community; confusion has been generated with docs and /or presentations in different versions on the same topic
- Action Item: Action: Francis states that he will coordinate with MPIG**
- d) Working actions can be assessed on ATA website and only final supporting docs should be posted on IMRBPB website
 - e) Industry requests to update website accordingly; chairman accepted
 - f) Mark Lopez of ATA stated he will update then ATA list to reflect the new members of the PB i.e. JCAB, CAAC.ATA:

12. **IP 44 industry concern:** MPIIG commented on IP44. Concern that if the IP 44 is being updated and there is a lag time to update FAA guideline 8900-1. The OEM may have to satisfy both set of guidelines. As such, MPIIG proposes that the FAA guidelines to take reference to IP 44 instead of text transposed. Guidelines 8900-1. MPIIG will write to FAA. Tony has concerns about IP-44 guidelines document being inserted into FAA guidance and that it not inserted in any FAA documents. He would like to see it reference in FAA guidance.

- a) All the other regulatory have been polled as to how they will handle IP-44 guidelines
 - I. TCCA: states it will be part of there new MRB AC, may be in an appendix.
 - II. CAAC: states it also will be part of there AC
 - III. JCAB: states it will copy and pasted into their guidance.
 - IV. EASA states: it will only refer to the guideline in the relevant WI to prevent duplication of documents dealing with the same issue
 - V. FAA Fox: informed group that IP 44 will be part of AC 121-22B.
- b) Industry will give presentation will be provided to regulatory at next PB Meeting 2011.

Action item: 08/03 will stay open and all comments from MPIIG 2010 to be considered and included in a new revision 3

13. Francis discussed the IP record comment sheet

14. **IP 102** “Window Utilization” Francis showed the members the PB recommendations.

- a) PB review comments from MPIIG of March 2009 that changes the original Issue and problem wording although the PB still stands on its decision to set up WG to look at this.
- b) In the event when the fleet utilization window has changed, the TCH should revisit each MSG 3 analysis to validate existing parameter and task interval and description.
- c) During the 2009 IMRBPB Meeting, PB decided that a regulatory working group (WG) is to be launched to address this issue and develop guidance.
- d) Francis proposed to bring this up at Dec meeting and is asking for someone to come up with proposal.
- e) There are two issues pertaining to this IP are ; how to handle
 - I. Utilisation window change/extension of world fleet after several years of experience
 - II. LUMP/HUMP
- f) As per Ottawa meeting an AA WG was supposed to be established to develop guidance on LUMP/HUMP.
- g) Jeff from TCCA stated he can come up with something for LUMP for next meeting. This will be on agenda for Dec 2010 meeting.
 - I. **Note:** Gary Goodwin (FAA) disagreed with MPIIG proposed statement of “...There is no rule requiring TCH to reassess...” Gary (FAA) further proposed to change the word “rule” with “guidance”.
- h) Original IP PB position has not changed from Dec 09 PB will accept the MPIIG changes by removing the word “rule” and changing to guidance.

IP Closed

Action Item: New action item 10/01 TCCA “Develop guidance for LUMP/HUMP” to be created and presented at Dec 2010 meeting.

15. **IP-104;** Previously CIP EASA 2009-2: “Consideration of so called “maintenance functions/systems” in MSI analysis” Review this IP – the PB agreed with the content of this IP.
- Zoran Jovanovic of Bombardier stated that MPIG agrees with the intent of IP but would like to see examples and is also proposing 2 minor changes.
 - PB agrees with the minor word changes
 - Raymond wanted to make sure that the original proposal stays on course all agreed the recommendation has been updated to reflect same.
 - Mark ATA wanted to make sure the problem statement agrees with the recommendation, all in agreement. **IP 104 closed this date**
16. **CIP EASA 2010 - 1** “Environmental pollution” and MSG-3 methodology”
- Francis presented the PB position that we feel we need more information and wanted to gather more information and EASA to provide info at Dec 2010 meeting,
 - Tony agrees that more work is need with this and stated that they want it to include spillage and be much broader in scope. MPIG is working this issue and is proposing to have a draft IP by next MPIG meeting. MPIG welcomes any recommendation the PB can give, but now we look at it separately.
 - Tony wants to know if two CIP are needed or do we go with the PB CIP.
 - PB position: PB will cancel this CIP and wait on MPIG CIP to be presented at the next IMRPPB meeting 2011. EASA proposed assistance to MPIG to work on this issue**
17. **IP 98 “Design service goals”** Francis discussed what transpired in the 2009 PB meeting and what the PB recommendation was in Dec 2010, MPIG has concerns with the PB recommendations for the IP.
- Apparently MPIG was discussing the wrong text proposal from regulatory.
 - Industry will discuss the regulatory statement that was put on the relevant IP response sheet during next Industry caucus
 - IP98 remains under discussion- **No Action yet.**
18. **IP 97- Fluid Spillage”** Francis is proposing that IP be closed as there are two Advisory Circulars to cover this, one from FAA & one from EASA.
- Cliff from TCCA wants to keep this IP open; Peter Osborne from Bombardier agrees that it should stay open and that if it is close MPIG will open anew CIP.
 - PB has concerns will look at this in a separate caucus and come up decision at next meeting
 - Cliff wants to see PB work this item at this meeting
 - Tony MPIG wants PB decision 60 days before there next MPIG meeting.

New Action item 10/02- PB to provide feedback and final statement regarding PB position concerning IP 97 decision 60 days (end of Aug) before next MPIG meeting

19. **IP-105**; Previously CIP 2009-1 “SHM” Structural Health Monitoring
- a) Lorenz Wenk introduce him self to the members and also introduced Luis Gustavo dos Santos (Embraer) and Jason Onorati (Boeing) who will give there perspective on SHM.
 - b) Lorenz Wenk of Airbus presentation : Airbus Vision on SHM
 - I. Aerospace Industry Steering Committee for SHM and Management (AISC-SHM) overview.(SAE aerospace for more info please see: aerospace.sae.org/)
 - c) Luis Gustavo Dos Santos of Embraer presentation. CVM Implementation
 - d) Jason Onorati Boeing 787 Vertical Fin Bolt Instrument-Bolt (I-Bolt) presentation. Boeing will not distribute this presentation to all members only to the regulatory due to Boeing proprietary rights. This presentation showed this procedure as an AMM task and it is an MRBR task.
 - I. OEM conclusions on SHM current technology presentation overview.
 - II. Review of the IP-195 and proposed recommendations as it pertains to the SHM process.
 - III. Lorenz gave final overview of the SHM 3 year WG progress he thanked everyone that was involved in this process.
 - IV. **This CIP 2009-1 is now IP 105** cross ref to old IP 92. PB will review this IP and come back with decision after regulatory caucus.
20. **IP-106** Previously CIP FAA 2010 -1; **Landing Gear and Off-wing Inspection Tasks”**
- I. PB proposal is as follows :
 - b) However MSG-3 analysis for landing gear is allowed to go lower than the highest manageable level without exceeding on-aircraft LRU capability. If analysis goes below the LRU capability resulting tasks should be identified in a document other then the MRBR with reference in the MRBR
 - c) Tony is in agreement of the PB proposal; Tony explained to group what transpired for the landing gear incident. MPIG will caucus and come back with final response to PB.
 - d) They did thank the PB for there effort on this matter and feel this should satisfy both regulatory and operators concerns.
21. **IP -107** Previously CIP EASA 2009 -1 “keeping up to date current MSG 3 MRBR”
- a) PB reworked wording of this CIP to make sure we stay in the bounds of IP 44 and presented it to the group.
 - b) MPIG is disappointed with the changes to this IP stating that they thought everyone was in agreement with the Web Ex that they had occurred.
 - c) Joel Maisonnobe (Dassault) giving MPIG proposal to this IP.
 - d) Tony states that there is a misunderstanding of IP-44 and states that it is always to be task by task. Tony feels that IP-44 applies only to escalation of tasks and not for de-

escalation. He feels that IP-44 to be updated to show that some cases task will not need IP-44 guidelines to escalate tasks.

- Task by task approach is understood
 - MPIG believes that for escalation should be justified by data from the fleet
 - There might be cases where escalation might be able to be justified without in service data (e.g. testing, qualification...)
 - IP44 guideline might have to be revised to take this into account, as
- e) Also a lot of concern about the removal of the word “initial” and replacing it with “minimum maintenance requirement.” In which a separate IP will be opened for this subject
- f) MPIG wants to meet and review the PB comment to this IP.
- g) Gary Goodwin FAA disagrees with MPIG stand on this subject.
- h) MPIG will let use know of there proposal of this IP.
- i) Gary aggress the PB will have to reconvene and discuss IP. Both MPIG and PB will meet and review each others comments.

Action Item: Gary Goodwin FAA to create separate IP dealing with removing the word “Initial” and replacing it with “minimum maintenance requirement.”

22. IP-108 Previously -1 CIP 2009-3 R1– “Fault Tolerant systems

- a) Zoran giving MPIG proposal of this CIP.
- I. Stating that ATA doc 2-3-4 does not allow a task to be defined as redundant.
 - II. MPIG requesting that the fault tolerant system paragraph, under 2-3-4 procedure (add to the end of the existing paragraph) **See CIP 2009-3**
 - III. Jeff asks for an example, Raymond also wants to see example.
 - IV. Gary asks if these are latent faults and Tony agrees. Gary states that these latent faults can lead to the ECAS message.

Action Item: MPIG to provide a clear example to help the group further understand the IP, and reword IP as needed.

18:00 Meeting adjointed for the day

Thursday April 29th, 2010

Note: Francis split both groups up to resolve some open issues from yesterdays meeting; both groups will reconvene after first break

13:30 (PB and MPIG)

23. IP 98 : Design service goals:

- a) Review of the comments presented by MPIG Tony states that there group has been able to fully comment on this IP and that they fell that the ESG is for the European aircraft, not sure if the FAA has anything dealing with ESG. The MPIG needs to get better understanding of the terms DSG, DSO.
- b) Meaning of DSG,DSO

- I. Need to better clarify the intent of the IP and better definition of the terms within the IP.
 - II. Define demonstrated certification fatigue value service life /Design Service Goal (DSO)/ Limit of Validity (LOV)/ life extension/ DS objectives.
 - III. **Final common proposal is as follows:** “If operational life of the design service life is established at certification was this considered when the maintenance schedule requirement was developed”
 - IV. **Action for Brian McLaughlin:** from Boeing wants to go back and get a better definition and come back and present to MPIG. The final regulatory proposal waiting on MPIG.
24. **IP 97 “Fluid Spillage:** All in agreement that PB will look at all comments and clean up and resend out for comment.
- a) **Action Item 10/02:** PB will provide MPIG with the regulatory reply by end Aug 2010 (i.e. 60 days prior MPIG meeting)
25. **IP 105 SHM: PB position on SHM.**
- IMRBPB fully supports the development of an 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 and analysis for SHM must be validated by various OEM’s on their applicable SHM system to ensure the effectiveness of the applicable mythology.
 - Once the IMRBR can validate such an analysis process as being applicable and effective, a revision to the MSG will then be warranted.
- a. PB asked about ATA’s stand whether they fully support the amendment of the MSG 3 to include SHM and **ATA Mark Lopez responded yes.**
 - b. Lorenz stated that his WG does not agree with the PB position on SHM. With that said this decision means that SHM will be a parallel process outside MSG3.
 - c. Jeff explained the PB decision as to how it related to LHIRF analysis concept implementation was dealt with in a similar way in the past.
 - d. Luis Gustavo Dos Santos: asked if they can use the process and apply it to see if it works.
 - i. **PB added statement:** this does not prevent a TCH, on a voluntary basis to introduce the proposal into its PPH, with approving authority agreement, to apply this proposal in the frame of the validation.
 - ii. ATA Mark wanted rewording of this statement “Once the IMRBR can validate such an analysis process as being applicable and effective, a revision to the MSG will then be warranted.” He request is to change the word **warranted**. PB. Agreed and statement to read “Once the IMRBR can validate such an analysis process as being applicable and effective, a revision to the MSG will then be **accepted**”.
 - e. Recommended that this IP be closed. **All agree this IP 105 is closed.**
26. **IP 107 “keeping up to date current MSG 3 MRBR”**

- a) 1st concern: MPIG not happy with removing the word “initial” PB agrees and remove this from the IP and FAA will issue separate CIP on this **MPIG supports this**
- b) 2nd concern: the revise IP-44 to handle specific situations :
 - I. **PB rejects:** the proposal and states that any optimization should be through addressed IP-44 any other situation then optimization should be addressed through other means.
 - **MPIG recommendation:** is to propose that further action on this CIP be differed pending a new IP from MPIG with proposed changes to the IP-44 guidance, and will be discussed during the next MPIG meeting in Nov 2010. The proposed changes will pertain to case were statistical analysis of fleet wide data is not feasible or appropriate.
 - **MPIG:** Feels that there are times when they have justification to make adjustments without sufficient data.
- c) 3rd concern: remove this statement “For new tasks the interval should be justified as per the dedicated issue Paper addressing interval determination of new MRBR”. PB agrees to remove.
- d) 4th concern: did not like the word” annual” PB rejects that concern. As per regulatory material, the annual frequency remains.
 - I. **Action FAA Gary:** to write new CIP to have the word initial removed and replace it with “minimum maintenance requirement.” See Item 13 from Ottawa meeting and item 11 from this meeting
 - II. **Action MPIG:** to meet and discuss this item remains open.

27. IP 106 : Landing Gear and Off-wing Inspection Tasks” review of MPIG comments

- a) **PB proposal:**
 - I. For Landing gear MSG-3 analysis MSI/SSI selection at the highest manageable level (i.e. ATA.32) is the acceptable approach
 - II. However MSG-3 analysis for landing gear is allowed to go lower than the highest manageable level without exceeding on-aircraft LRU capability. If analysis goes below the LRU capability resulting tasks should be identified in a document other then the MRBR with reference in the MRBR
- b) **MPIG proposed the following:**
 - I. For Landing gear MSG-3 analysis MSI/SSI selection at the highest manageable level is the preferred method
 - II. However MSG-3 analysis for landing gear is allowed to go lower than the highest manageable level, If analysis goes below the LRU level the resulting tasks may be identified in the MRBR within a single high level task, or reference made within the MRBR a document other then the MRBR with reference in the MRBR to another document.
 - III. **All agree to the latest change to this IP. IP 106 closed this date**

28. Due to the full agenda and potential lack of time it was decided to postpone the following IP’S until the next meeting
 - CIP 2009-2 Inspection Glossary Definition
 - IP 96 Interaction Structure and System
 - CIP 2008-5-6-7 Crew maintenance

17:30 Meeting adjourned**Friday April 30, 2010**

29. PB and MPIG meeting separately for start of day

11:00 Joint meeting both groups back in session.

30. **IP 107** “keeping up to date current MSG 3 MRBR” Refer to Item 26

- a) **MPIG:** comments on the 4 concerns
 - I. Para (a) MPIG agrees
 - II. Para (b) MPIG agrees but wants clarification of the term “Optimization is needed”
 - III. Para (c) MPIG agrees
 - IV. Para 9d) MPIG no objection and accepts.
- b) MPIG now recommends that this IP be closed and no remain open, MPIG will develop a new CIP to address clarification of the term “Optimization
- c) All members are in agreement IP 107 is closed.

31. **IP-98: Design Service Goals**

- a) **MPIG proposal:**
 - I. MPIG has reworded the IP without changing the intent of the IP, PB members agrees with the changes submitted by MPIG.
 - II. MPIG is requesting item IP to stay open for further review by TCH.
 - III. PB will close IP today, as all are in concurrence with the text and the recommendation, being clear enough for everybody; any detailed further clarifications within OEM’s can be done outside this IP, as the goal of the IP has been reached anyway.
 - IV. IP- 98 closed with changes presented by MPIG.

32. **IP108 Fault Tolerant System:**

- a) Remains open, as MPIG needs to provide more details/examples to clarify the IP scope.

Final Review of open and closed items

33. IP that were opened during this meeting 104,105,106,107 & 108 (total 5)

34. Closed IPS this meeting 102,104,105,106, 98 & 107 (total 6)
35. IP Remaining open for next meeting
 - a) IP 93 Single data base;
 - b) IP 96 Interaction Systems & Structures;
 - c) IP97 Fluid Spillage;
 - d) CIP 2008-5/6/7 Flight crew maintenance;
 - e) CIP 2009-2 Inspection Glossary definitions;
 - f) IP108 Fault Tolerant Systems
36. Major issues discussed and closed during the meeting.
 - a) Landing Gear and off-wing task (IP106)
 - b) SHM (IP 105) agreement to proceed
37. 5 CIP's for next meeting
 - a) Optimization: IP44 revision proposal by IND, (**in relation with IP 107 discussion**)
 - b) Removal the word "initial" in MSG3 text/scope by FAA
 - c) Justification of initial tasking requirement intervals on new projects and /or new design by FAA
 - d) Justification of initial tasking requirement Guidance on LUMP/HUMP development by TCCA
 - e) Ecologically environmental consideration by MPIG
38. Action Items Review
 - a) Closed 05/05 regarding IP 71
 - b) Opened 10/01- TCCA to develop LUP/HUM , 10/02 Clean up comments to IP-97
 - c) Still open 08/03, 08/04 & 08/01
39. Next Meetings proposed dates
 - a) IMPRPB – April 25-29, 2011- CAAC Beijing China:
 - b) MPIG Meeting – Oct 26-28 2010- Location TBD
 - c) Pre MRBPB – SEA –Dec 6-10 , 2010 Hosted by FAA
40. PB proposal to start the opening meeting Monday morning due to the workload and the intensity of discussion during these meetings. After opening meeting the PB and MPIG will split up for their caucuses. The IMRBPB will then start on start Tuesday morning, all in agreement to this proposed change.
41. Chairman had discussion dealing of the pre meeting and how the information will be presented to MPIG, this way MPIG can have the entire PB proposal before the IMRBPB meeting. Francis has stated that the PB will be using web Ex , Tony informs that MPIG will be also be using web-ex on a monthly basic to keep up to date with information.
42. Brian Jenkins of Bell Helicopter – Rotor Craft Group presentation on MSG-3 development.

- a) ATA basically agrees to try to support the communication between the legal departments from ATA and HAI in order to obtain clarification on MSG3 document usage and appreciates the activity within the helicopter community
- b) FAA appreciates the activity
- c) TCCA emphasises that the MP development of Bell 429 has shown that such an activity is useful
- d) Basically all agreed that a dedicated ownership and copyright has to be set up to finally have a profound process that can be validated by AA as standard for the MP development for rotorcraft
- f. Rotor group would like to use MSG-3 document , but tailor it to the helicopter world
- g. Good discussion by the group on this subject.

43. Closing comment by members of the meeting:

- a) MPIG thanks the PB members and CAAS for the hosting of this meeting
- b) Tony: To examine methods of working together as the community is still growing up and it gets harder to come to decisions
- c) EMB: working internally on being able to regularly participate
- d) Boeing: emphasises enhancement in communication in between MPIG and IMRBPB
- e) ATA: appreciates the MPIG and IMRBPB keeping the MSG3 doc up-to-date and ATA will further try for more operator participation.
- f) SHM WG: decision accepted to use process on PPH level, although the work group has hoped for the full acceptance of the process into MSG3.

44. Gary Goodwin brought fwd to PB a proposed IP that the initiated from SEA AEG dealing with TSO performance requirements, subject is dealing with the passenger O2 mask. He gave an over view of the issue at hand, it will be discussed further within the FAA.

45. Chairman thanked everyone for their attendance. It was brought up that Francis chairman position will be open for election during the Dec 2010 pre meeting. The members thanked Francis for his work as chairman during the last two years.

46. Meeting adjourned at 15:00.