

International Maintenance Review Board Policy Board (IMRBPB)

Issue Paper (IP)

Initial Date (DD/MMM/YYYY): 20/Oct/2014

IP Number: IP 147

Revision 0 / Date 22/Apr/2015

Title: Clarification of “human occupant” in Volume 2

Submitter: RMPIG (AgustaWestland)

Applies To:	
Vol 1:	
Vol 2:	X
Both:	

Issue: Various definitions of terms in MSG3 (coming from fixed wing) may introduce confusion as to how to address rotorcraft function, such as Utility or SAR, which may include human cargo operations outside of the rotorcraft during operation

Problem: The definition of “*Adverse Effect on Safety*” in MSG-3 (2013.1) Volume 2 applies to “human occupant”.

The definitions of “*failure condition*” refers to “occupants”

The definition of SSI considers only the “*structural integrity necessary for the safety of aircraft*”

The term “occupant” or “on board” may be interpreted in the sense of physically limited to the inside of the rotorcraft.

For rotorcraft, we should make clear that these definitions apply for example to a winchman or other people attached on the rescue hoist or cargo hook.

With reference to the structures, the concept of “safety of aircraft” may be interpreted in the sense of physically limited to the aircraft structural integrity. The current definition should be expanded to ensure that also the structures responsible to sustain human external loads (i.e. the cargo hook support frame when certified for human cargo operations) should be classified as SSI.

Recommendation (including Implementation):

For implementation in MSG-3 Volume 2 para 2-3-5.2, para 2-4-1.1 and Appendix A. Glossary, there are potentially 2 options (changes identified in red):

OPTION A)

Clarify both definitions as follows:

Adverse Effect on Safety: Safety shall be considered as adversely affected if the consequences of the failure condition would prevent the continued safe flight and landing of the aircraft and/or might cause serious or fatal injury to human occupants, including those directly supported by external load carrying systems (i.e. hoist/cargo hook etc)

A Structural Significant Item (SSI) is any detail, element or assembly, which contributes significantly to carrying flight, ground, pressure or control loads or external load, and whose failure could affect the structural integrity of the aircraft necessary for the safety

[“of the aircraft” moved from the end to after integrity]

Or

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OPTION B)

Add a generic NOTE like the following one in the para 2-3-5.2:

NOTE: a "YES" answer must be selected for every functional failure which have an adverse effect to the safety of people supported by external load carrying systems (i.e. hoist/cargo hook etc).

and expand the SSI definition in the para 2-4-1.1 adding a NOTE for “human occupants” clarification too:

A Structural Significant Item (SSI) is any detail, element or assembly, which contributes significantly to carrying flight, ground, pressure or control loads **or external load**, and whose failure could affect the structural integrity necessary for the safety of the aircraft **and/or might cause serious or fatal injury to human occupants**.

NOTE: the term “human occupants” includes people supported by external load carrying systems (i.e. hoist/cargo hook etc).

IMRBPB Position:

Date: 22/04/2015

Position:

The IMRBPB confirmed that the best option was the first paragraph from option A and the second paragraph from option B. The new paragraph that was accepted is detailed below in the recommendation. Closed as IP 147.

Status of Issue Paper (when closed state the closure date): 22/04/2015

Recommendation for implementation: Next revision of MSG-3.

Adverse Effect on Safety: Safety shall be considered as adversely affected if the consequences of the failure condition would prevent the continued safe flight and landing of the aircraft and/or might cause serious or fatal injury to human occupants, **including those directly supported by external load carrying systems (i.e. hoist/cargo hook etc)**

Structural Significant Item (SSI) is any detail, element or assembly, which contributes significantly to carrying flight, ground, pressure or control loads **or external load**, and whose failure could affect the structural integrity necessary for the safety of the aircraft **and/or might cause serious or fatal injury to human occupants**.

NOTE: the term “human occupants” includes people supported by external load carrying systems (i.e. hoist/cargo hook etc).

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Retroactive: No

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