

**International Maintenance Review Board Policy Board (IMRBPB)**  
**Issue Paper (IP)**

**Initial Date:** DD/MM/YYYY

**IP Number:** IPXXX

**Revision / Date:** RX / DD/MM/YYYY

**Title:** Updated definition of “Adverse Effect on Safety”

**Submitter:** EASA

| Applies To: |   |
|-------------|---|
| MSG-3 Vol 1 | X |
| MSG-3 Vol 2 | X |
| IMPS        |   |

**Issue:** Definition of “Adverse Effect on Safety” in the MSG-3 (Rev. 2018.1) Volume 1 and 2 Document is not in line with the ICAO definition of “Safety”.

**Problem:**

The definition of “Adverse Effect on Safety” in the MSG-3 Document Volume 1 is the following “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”.

The definition of “Adverse Effect on Safety” in the MSG-3 Document Volume 2 is the following “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.).”

The definition of “Safety” in the ICAO Document 9859 is the following “Safety is the state in which the possibility of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management.”

Based on the definitions above, the MSG-3 definition for Volume 1 and 2 is limited to serious or fatal injury to human occupants, including those directly supported by external load carrying systems (i.e. hoist/cargo hook etc.) and does not consider the damage of property, on the other hand the definition according to ICAO considers the possibility to harm persons and includes property damage.

Example 1. If a part of the airplane is lost during flight and for the trajectory assessment there should not be a direct impact on the airplane, based on the MSG-3 logic it would not prevent the continued safe flight and landing of the aircraft and/or does not cause serious or fatal injury to human occupants. However this part can have impact on ground causing a serious or fatal injury to persons and/or damage to property (some Airworthiness Directives have been issued for this topic).

Example 2. If we take in consideration a situation where the actuators of the cargo compartment door fail and hit someone who is loading the aircraft, for current MSG-3 logic this situation does not have an adverse effect on operating safety, because people on ground are excluded from the scope of the analysis.

**Recommendation (including Implementation):**

2.3.5 Consequence of Failure (First Level) in MSG-3 (Rev. 2018.1) Volume 1 and 2

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~~

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~~supported by external load-carrying systems (i.e. hoist/cargo hook etc.)~~ persons and/or might cause damage to property.

Glossary has to be amended accordingly.

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| <b>IMRBPB Position:</b> |
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| <b>Date:</b> |
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**Status of Issue Paper and date:**

**Recommendation for implementation:**

**Retroactive: NO**

**Important Note:** The IMRBPB IPs are not policy. An IP only becomes policy when the IP is adopted into the processes of the appropriate National Aviation Authority. However, before formal adoption, the IP content may be incorporated by the MRB applicant on a voluntary basis with the agreement of all parties as detailed in the program PPH.