

**International Maintenance Review Board Policy Board (IMRBPB)**

**Issue Paper (IP)**

**IP Number:** IP 203

**Initial Date (DD/MMM/YYYY):** 24/Jun/2022

**Revision / Date (DD/MMM/YYYY):** Rev. 0 / 24/Jun/2022

**Effective Date (DD/MMM/YYYY):** 01/Oct/2022

**Retroactivity (Y/N):** N

<b>Title:</b>	Recognition of the VTOL Aircraft
<b>Submitter:</b>	RMPIG & MPIG

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

**Issue:**

The MSG-3 methodology can also be applicable to VTOL aircraft. The application of the MSG-3 to VTOL aircraft is advantageous for manufacturers and the VTOL aircraft later demonstration of compliance with airworthiness and safety requirements to regulatory authorities.

(EASA) recently published a special condition for certification of small electric and hybrid vertical take-off and landing (VTOL) aircraft ([SC-VTOL-01](#)).

EASA's Special Condition is the first set of certification standards for VTOL aircraft published by an aviation authority.

**Problem:**

Type certification of vertical take-off and landing (VTOL) aircraft is different from conventional rotorcraft or fixed-wing aircraft. The distinction from conventional airplanes is based on the VTOL capability of the aircraft while the distinction from conventional rotorcraft is based on the use of distributed propulsion, specifically when more than two lift/thrust units are used to provide lift during vertical take-off or landing.

SC-VTOL-01 provides guidelines for Instructions for Continued Airworthiness in section VTOL.2625.

In order to establish first steps to use MSG-3 methodology to provide ICA for these kinds of aircraft, RMPIG would like to recommend update in IMPS in order to allow the TCHs to use MSG-3 and MTB process for VTOL aircraft scheduled maintenance programs development.

**Recommendation (including Implementation):**

IMPS section 3.0 General Application Rules, update the text as follows:

- 3.2 MRB Applicability** - The MRB process is recommended for:
- (1) Transport category airplanes having a maximum weight of 33,000 lb. or more, (use MSG-3 Volume 1)
  - (2) Transport category helicopters certificated to carry 10 or more people or having a maximum weight of 20,000 lb. or more, (use MSG-3 Volume 2), or
  - (3) Powered-lift aircraft (use MSG-3 Volume 2).

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**3.3** MTB Applicability - The Maintenance Type Board (MTB) process is recommended for all other transport category aircraft (airplanes less than 33,000lbs or helicopters certificated to carry less than 10 people or less than 20,000lbs). The MRB process may be used for these aircraft, at the applicant's option.

**3.4** ~~Neither the MRB nor the MTB processes are expected for the remaining aircraft (Part 23 Airplanes, or Part 27 helicopters) however, these processes may be used for these aircraft, at the applicant's option.~~ Type Certificate Holders of Part 23 (or equivalent) airplanes and Part 27 (or equivalent) helicopters may also apply for MRB or MTB processes at their own discretion.

Type Certificate Holders of electric or hybrid Vertical Take-Off and Landing (VTOL) aircraft may also apply for MTB processes on a case-by-case basis.

Since VTOL aircraft designs can differ substantially and have significantly different certification basis, existing MTB processes and MSG-3 methodology would need to be adapted to suit the specific needs.

In APPENDIX 4 (List of Abbreviations and Glossary of Terms):

VCK Visual Check  
VTOL Vertical Take-Off and Landing  
WG Working Group

***NOTE: The original CIP proposal was submitted by Bell and Airbus***

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<b>IMRBPB Position:</b>	
<b>Date:</b>	24 June 2022
<b>Position:</b>	Agreed, closed in 2022 meeting as IP 203
<b>Recommendation for Implementation:</b>	As per effective date

<b>Status of the Issue Paper:</b>	<input checked="" type="checkbox"/>	Active
	<input type="checkbox"/>	Incorporated in MSG-3 / IMPS (with details)
	<input type="checkbox"/>	Archived