

## KEY CHANGES

### DDPMAS Version 1.0 to Indian Military Airworthiness Procedure-2023 (IMAP 2023)

1. The key recommendations made by the external consultancy agency tasked by MoD to review & benchmark DDPMAS Ver 1.0 against global best practices have been incorporated in IMAP-2023. Important Changes made in this regard are as under:
  - a) With the aim of minimising stage-gated approvals to enhance process efficiency and accelerate D&D timelines, self-approval has been enabled in non-critical areas during test & evaluation phase of ab-initio design & development of Air System and Airborne Stores as well as indigenous substitution. This includes self-approvals of test plans & procedures as well as QA activities.
  - b) Augmentation of assurance process for testing through enhanced digitisation of the test reporting process. All the test results to be generated and provided to TAA in digital format for faster processing of approvals.
  - c) Industry standard Quality Assurance requirements such as 'AS9102 for First Article Inspection' have been enabled for vendors / sub-contractors.
  - d) Joint test & evaluation team constitution for QA & QC requirements during D&D and manufacturing phase to fast track these activities.
  
2. Outcomes of following three Cross Functional Teams constituted by Joint Airworthiness Committee (JAC) while ratifying DDPMAS Ver 1.0 have been incorporated in IMAP-2023:
  - a) Design Organisation Approval Scheme (DOAS)
  - b) Customer Furnished Equipment (CFE) / Customer Specified Equipment (CSE)
  - c) Usage of Commercial of the Shelf (COTS) items
  
3. The role of System Certification Review Board (SCRB) has been enhanced to act as the Apex Board (similar to an Ombudsman) to handle the issues raised if any, by the D&D organisations on the dispositions given by CEMILAC / RCMA during the design airworthiness certification process of air system / airborne store.
  
4. A new Chapter-3A has been added to IMAP-2023 document to address "Buy Global – Manufacture in India" acquisition category of DAP-2020 in IMAP-2023. This will facilitate Govt. Quality Assurance (GQA) oversight in such programs.

5. The certification modalities for Indigenously developed Unmanned Aircraft Systems (UAS) less than 150 Kg have been aligned with the Drone Rules 2021 issued by Ministry of Civil Aviation (MoCA) and Certification Scheme for Unmanned Aircraft Systems of Quality Council of India (QCI). The same are given in Chapter 6 in IMAP-2023 and Subpart B2. Hence Military TAA certification shall be required only for Large category UAS and Weaponised UAS.
6. With the aim to give impetus to research and innovation projects by optimising certification requirements for such projects, the Chapter 8 in IMAP-2023 and Subpart I in IMTAR-21 on Research Air System / Airborne Stores have been suitably revised. These changes provide necessary clarity in Subpart-I about the objective criteria to be used to categorise the projects under Research Air System /Airborne Stores category.
7. All the Subparts under IMTAR-21 Ver 2.0 are released as individual documents apart from the complete compendium, so as to enable easy reference by various stakeholders. For example, an organisation involved in D&D of airborne materials will be able to completely address all the airworthiness certification aspects as per the provisions contained in IMTAR-21 Subpart C3.
8. Feedback received from various stakeholders while working with the provisions outlined in DDPMAS Ver 1.0 have also been addressed in IMAP-2023. These changes pertain to removal of ambiguity and further refinement & simplification of technical airworthiness requirements and procedures etc. Some of the key changes included in IMAP-2023 based on the feedback received are as under:
  - a) Requirements and procedures contained in IMTAR-21 Subpart K have been revised to ease out indigenous substitution and bring in further clarity on criticality classification.
  - b) The entire Subpart C3 on Airborne Materials has been revisited and revised based on the detailed feedback received from various stakeholders. The recommendations by the Certification Sub-committee of the Task Force on Indigenisation of Military Materials constituted by MoD have also been incorporated in the revised Subpart C3.
  - c) IMTAR-21 Subpart F on 'Production of Air Systems and Airborne Stores' has been revised to bring in clarity on proforma for Defect Investigation Report (DIR) to be used during production phase, Requirement of forming Reliability & Maintainability Cell and on acceptance testing of production deliverables & periodic testing during production etc.