

TECHNICAL AIRWORTHINESS ADVISORY CIRCULAR



DIRECTORATE GENERAL TECHNICAL AIRWORTHINESS

MALAYSIAN STATE TECHNICAL AIRWORTHINESS REGULATION (MSTAR)

MSTAR 21 - AIRCRAFT DESIGN, PRODUCTION, AND CERTIFICATION DURING THE TRANSITION PERIOD

REFERENCE

- A. TAAC-G-001 Revision: 0 - Transition of an Airworthiness Management System from Technical Airworthiness Management Manual (TAMM) to Malaysian State Technical Airworthiness Manual (MSTAM) dated 31 May 24.
- B. TAAC-M-003 Rev. 1st Issue dated 17 Oct 22.

INTRODUCTION

1. The Technical Airworthiness Advisory Circular (TAAC) is a document issued by the Technical Airworthiness Regulator (TAR) that provides instructions and means for complying with technical airworthiness regulations.
2. The State Aircraft Operator (SAO) and Commercial Organisation responsible for Aircraft Design, Production, and Certification shall comply with this TAAC.

PURPOSE

3. This TAAC explains the transition management for Authorised Engineering Organisation (AEO) approval issued under TAMM 2nd Edition Regulation 3 to Design Organisation Approval (DOA) and Production Organisation Approval (POA) issued under Malaysian State Technical Airworthiness Regulation (MSTAR) 21 Subpart J and G, respectively.
4. This TAAC also addresses the transition management of State Registered Aircraft (SRA) Instruments previously issued under TAMM 2nd Edition Regulation 2.

APPLICABILITY

5. This TAAC applies to:
 - a. The SAO and Commercial Organisation currently hold AEOs that provide design and production approval for designated scope/levels.

- b. New SAO/Commercial Organisations application for DOA and POA under MSTAR 21.
- c. SAO/State Registered Aircraft Operator (SRAO) is applying for SRA Instruments (Certificate of Registration (CoR), Malaysian State Type Certificate (MSTC)/Supplemental Type Certificate (STC), Initial Certificate of Airworthiness (Initial CoA), and Permit to Fly (PTF)).
- d. The Commercial Organisation that currently holds AEO is providing design services for Aircraft Structure Integrity (ASI) / Engine Structure Integrity (ESI) activities.

EFFECTIVITY

- 6. The instructions become effective upon receiving this TAAC and MSTAR 21 Issue No: Rev 0. Both documents can be accessed through the DGTA portal (Publications and Forms - MSTAR / TAAC).
- 7. For DOA/POA approval, SAOs and commercial organisations are to comply and implement within one (1) year, starting from the date of this TAAC but not later than **1 June 2025**.
- 8. For SRA Instruments, SAOs/SRAOs are to comply and implement starting **1 June 2024**.
- 9. For SAO that currently holds AEO approval under TAMM for the scope of Configuration Item (CI) management of the whole aircraft may need to apply for Continuing Airworthiness Management Organisation (CAMO) approval under MSTAR M once the validity of the current certification expires **or** may seek to comply and implement at the earliest date but not later than **1 June 2025**.
- 10. Commercial organisations currently holding AEO for design and production activities approval is to comply and implement within one (1) year, starting from the date of this TAAC but not later than **1 June 2025**.
- 11. Commercial organisations that currently hold AEO under TAMM for ASI/ESI activities shall need to apply for DOA under MSTAR 21 and to comply and implement within one (1) year, starting from the date of this TAAC but not later than **01 June 2025**. These organisations shall comply with the latest revision of TAAC-E-005 and related AMCs in MSTAR 21.
- 12. The regulation and requirement for CoA renewal, previously under TAO-M as per Ref. B, since 1 Jan 2024, will now be under MSTAR M M.A.710 and M.A.901, respectively, effective 1 June 2024. The regulation and requirement for CoA renewal continue to be under the management of AAER-ACR, and there are no changes in the procedure for applying for CoA Renewal.
- 13. The MSTC/STC issued under TAMM remains valid until it is cancelled, suspended, or revoked by DGTA.

IMPLEMENTATION

14. The implementation of this TAAC shall be executed in line with the requirement in MSTAM Rev 0 dated 1 June 2024 to guide the following areas:

- a. Organisational Approval.
- b. SRA Instruments.
- c. Aircraft Structure Integrity Program (ASIP) requirements.

15. **Organisation Approval.** The DOA, POA, and Technical Standard Order Authorisation (TSOA) are under MSTAR 21. These approvals come with terms that consist of the scope of approval, categories of products (platforms), list of products, privileges, and limitations. Applications are controlled through the MSTAR 21 Initial Airworthiness requirements, specifically within three (3) Subparts defining the approval pathway.

a. **MSTAR 21 Subpart J - Design Organisation Approval.** This Subpart sets out the requirements for approval as a DOA, the privileges and obligations of a DOA, roles and responsibilities of a DOA for carrying out design activities.

b. **MSTAR 21 Subpart G - Production Organisation Approval.** This Subpart sets out the requirements for approval as a POA, showing conformity of products, parts, and appliances with the applicable design data.

c. **MSTAR 21 Subpart O – Technical Standard Order Authorisation.** This Subpart sets out the requirement for approval as a TSOA which is awarded to an organisation that can demonstrate the design of a TSO item and the capability to manufacture the item to meet the minimum safety and performance standards.

16. **SRA Instruments.** Table 1 summarises the fundamental changes of SRA Instruments under Tamm 2nd Edition to respective MSTAR.

Instruments	TAAC Under Tamm 2nd Edition		MSTAP/ MSTAR
CoR	TAAC-E-001	Aircraft Registration	MSTAP Part 1 Chapter 2 Para 5
MSTC/RMSTC	TAAC-E-002	Malaysian State Type Certificate (MSTC)	MSTAR 21 Subpart B - Malaysian State Type Certificates and Restricted Malaysian State Type Certificates
Initial CoA and ARC (MSTAR Form 25)	TAAC-E-003	Certificate of Airworthiness (CoA) Issuance and Renewal	MSTAR 21 Subpart H - Certificates of Airworthiness and Restricted Certificates of Airworthiness
			MSTAR M Subpart I - Airworthiness Review Certificate (ARC) (<i>Formerly known as CoA Renewal</i>)

Instruments	TAAC Under Tamm 2 nd Edition		MSTAP/ MSTAR
PTF (MSTAR Form 20A)	TAAC-E-004	Special Flight Permit (SFP)	MSTAR 21 Subpart P - Permit to Fly (<i>Formerly known as SFP</i>)
MSTC/RMSTC	TAAC-E-009	Unmanned Aircraft System (UAS) Restricted MSTC	MSTAR 21 Subpart B - Malaysian State Type Certificates and Restricted Malaysian State Type Certificates
			MSTAR UAS - Certified Category UAS

Table 1 - Key Changes of SRA Instruments

17. **ASIP requirements.** ASIP was previously regulated under Tamm 2nd Edition Regulation 3.5.4. Under the MSTAR framework, the established ASIP will be preserved for existing weapon systems and established for new acquisitions. Responsibility for executing ASIP elements will then be divested among the MSTAR 21 Subpart J, MSTAR M, and MSTAR 145. Please refer to the latest amendment of TAAC-E-005 and ASI-related AMCs in MSTAR 21, MSTAR M, and MSTAR 145.

REQUIREMENT

18. The Maintenance Authorising Office (MAO) planning to sponsor any organisation to be approved as DOA, POA or TSOA shall seek early advice from DGTA on the proposed scope and level statement for the sponsored organisation.

19. For DOA/POA approval, SAO and commercial organisations are required to:

- a. Submit MSTAR Form 80 for DOA, MSTAR Form 50 for POA applications and submit MSTAR Form 4 for Nominated Post Holders.
- b. Develop and submit Design Organisation Exposition (DOE) and Production Organisation Exposition (POE) during application.
- c. Submit the applied privileges under MSTAR 21 for approval.
- d. Submit technical specifications of maintenance contract (if applicable) with an AMO.
- e. In case of commercial organisation, submit proof of authorisation from the relevant MAO or the Government of Malaysia, whichever is applicable.
- f. Submit any additional documentation required by DGTA.

20. Airworthiness Review Certificate (ARC) applications are to follow existing requirements in MSTAR M.

21. Application for PTF (MSTAR Form 21) shall comply with MSTAR 21 Subpart P requirements.

22. The MAO shall promulgate these changes into necessary instruction for broader reach and records.

VERIFICATION AUDIT

23. DGTA shall conduct a Verification Audit as and when required to verify compliance with this TAAC and MSTAR 21.

CANCELLATION / REVIEW OF INSTRUCTION

24. **Cancellation.** This TAAC will affect the cancellation of the following TAACs:

- a. TAAC-E-001 Rev 0 - State Aircraft Registration.
- b. TAAC-E-002 Rev 1 - Malaysian State Type Certificate.
- c. TAAC-E-003 Rev 0 - Certificate of Airworthiness Issuance & Renewal.
- d. TAAC-E-004 Rev 0 - Special Flight Permit.
- e. TAAC-E-008 - Certificate of Conformance.
- f. TAAC-E-009 Rev 0 - UAS Restricted MSTC.

25. **Review.** The following TAACs will be reviewed in accordance with MSTAM:

- a. TAAC-E-010 Rev 0 - Type Validation.
- b. TAAC-E-005 Rev 1 - Guidance for ASI management system.

FACILITATION

26. Organisational Approval for those seeking MSTAR M and MSTAR 21 compliance should facilitate the DGTA audit team's requirements throughout the audit.

REPORTING / RECORDING ACTIONS

27. **Reports Required.** There is no mandatory reporting requirement on receipt of this TAAC.

28. **Recording Action.** A copy of this TAAC is to be retained in the applicable document management system records in accordance with applicable internal procedures.

29. **Point of Contact.** The DGTA point of contact for this TAAC is Staff Officer 1 Technical Airworthiness Regulatory (TAR) of DGTA through email rengiah@airforce.mil.my and dgta@mod.gov.my.

24 June 2024

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the bottom.

**DIRECTOR GENERAL
TECHNICAL AIRWORTHINESS AUTHORITY**