

RA 4810 - Technical Information (MRP 145.A.45)

Rationale

The Maintenance of Air Systems can be complex and involve activity that requires the use of accurate, detailed Technical Information (TI) in order to ensure Maintenance personnel are working to current processes and procedures. Failure to use and adhere to the TI published in the Air System Document Set (ADS) will adversely affect the Continuing Airworthiness of an Air System or component, increasing the likelihood of an Occurrence and potentially Risk to Life. This RA requires a Maintenance organization to use current and approved TI and to employ systems that enable the reporting of unsatisfactory features and amendments.

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Definitions

► Definitions Relevant to this RA

1. **Tradesperson.** Suitably Competent and authorized staff responsible for executing Air System Maintenance activities. This role may also be known as Support Staff within Approved Maintenance Organizations (AMOs) or 1st Signature within Military Maintenance Organizations (MMOs).
2. **Supervisor.** Suitably Competent and authorized staff responsible for carrying out supervision of Tradespersons in the execution of their Maintenance activities. This role may also be known as the 2nd Signature within MMOs.
3. **Coordinating / Certifying Staff.** Staff holding Authorization by the Maintenance organization to endorse the appropriate Certification of Air System Release and / or Component Release (Air System coordination / Work Order coordination)¹. ◀

Regulation 4810(1)

Use of Approved and Current Technical Information (MRP 145.A.45(a))

4810(1) The organization **shall** hold and use applicable, approved and current TI in the performance of Maintenance, including Modifications and Repairs. In the case of TI provided by the Military Continuing Airworthiness Management Organization (Mil CAMO), the organization **shall** hold such data when the work is in progress, noting the additional requirements of RA 4813(3)².

¹ ► Refer to RA 4812 – Certification of Air System Release and Component Release (MRP 145.A.50). ◀

² Refer to RA 4813(3): Management of Retained Maintenance Records (MRP 145.A.55(c)).

Acceptable Means of Compliance 4810(1)

Use of Approved and Current Technical Information (MRP 145.A.45(a))

4. Nil.

Guidance Material 4810(1)

Use of Approved and Current Technical Information (MRP 145.A.45(a))

5. Nil.

Regulation 4810(2)

Scope of Applicable Technical Information (MRP 145.A.45(b))

4810(2) To complement its MAA02³ definition, for the purposes of MRP Part 145, applicable TI⁴ **shall** also include, but not be limited to, any of the following:

- a. Any applicable requirement, procedure, operational directive or information issued by the authority responsible for the oversight of the Air System or component.
- b. Any applicable Special Instructions (Technical) (SI(T)) or Airworthiness Directives (AD) issued by the authority responsible for the oversight of the Air System or component.
- c. Continuing Airworthiness instructions issued by the MAA-approved Design Organization, or the Military Continuing Airworthiness Manager (Mil CAM).
- d. Any applicable standard, such as, but not limited to, Maintenance standard practices recognized by the MAA as a good standard for Maintenance.
- e. Any applicable information issued in accordance with (iaw) RA 4810(4)⁵.

Acceptable Means of Compliance 4810(2)

Scope of Applicable Technical Information (MRP 145.A.45(b))

6. An organization undertaking Air System and / or uninstalled engine / Auxiliary Power Unit (APU) Maintenance **should** hold and use the following additional TI, where published:

- a. The appropriate sections of the ADS⁶, including all relevant Technical Publications, or engine / APU Technical Publications, depending on the organization's planned scope of work whether a MMO or a Contracted Maintenance organization seeking Approval.
- b. Service Bulletins, Service Letters and service instructions (all covered in the MOD system by SI(T)s).
- c. Modification leaflets.
- d. Non-Destructive Testing / Non-Destructive Inspection manual.

7. An organization undertaking component Maintenance, other than complete engines / APUs, **should** hold and use the following additional TI, where published:

- a. The appropriate sections of the vendor Maintenance and Repair manual.
- b. MOD SI(T)s, Service Bulletins and Service Letters.

³ Refer to MAA02: MAA Master Glossary.

⁴ Refer to RA 5815 – Instructions for Sustaining Type Airworthiness.

⁵ Refer to RA 4810(4): Modification of Technical Information (MRP 145.A.45(d)).

⁶ Refer to RA 1310(1): The Air System Document Set.

Acceptable Means of Compliance 4810(2)

8. An organization undertaking only specialized services (eg Non-Destructive Testing) **should** hold and use all applicable specialized service(s) process specifications.

Guidance Material 4810(2)

Scope of Applicable Technical Information (MRP 145.A.45(b))

Common GM

9. 'Applicable' means relevant to any Air System, component or process specified in the organization's Approval class rating schedule or planned scope of work and in any associated capability list.

10. In relation to Paragraphs ►6◄ and ►7◄, 'appropriate sections' means the TI relevant to the scope of Maintenance undertaken at each particular Maintenance facility.

Additional GM - MMOs only

11. Nil.

Additional GM - Approved Maintenance Organizations (AMOs) only

12. 'Technical Information', as defined in MAA02, comprises a wider range of documentation than the civil aviation term 'Maintenance Data', which may be more familiar to those AMOs utilizing traditional civil aviation processes. However, within the context of its use in MRP Part 145, the term 'Maintenance Data' may be used in lieu of the term 'Technical Information' in such AMO's documentation.

Regulation 4810(3)

Requirement to Inform Technical Information Author of Errors (MRP 145.A.45(c))

4810(3) The organization **shall** use a recognized procedure to ensure that, if found, any errors⁷ in TI used by Maintenance personnel are recorded and notified to the TI sponsor.

Acceptable Means of Compliance 4810(3)

Requirement to Inform Technical Information Author of Errors (MRP 145.A.45(c))

13. The procedure **should** ensure that when Maintenance personnel discover inaccurate, incomplete or ambiguous information in the TI they will record the details. The procedure **should** then ensure that the Maintenance organization notifies the problem to the authorized sponsor of the TI in a timely manner.

14. A record of such communications to the authorized sponsor of the TI **should** be retained by the Maintenance organization until such time as the authorized sponsor has clarified the issue by, for example, amending the TI.

15. The procedure **should** be specified in the Maintenance organization Exposition (MOE) or orders as applicable.

Guidance Material 4810(3)

Requirement to Inform Technical Information Author of Errors (MRP 145.A.45(c))

16. The preferred process for proposing amendments to TI is through submission of a MOD Form 765, Unsatisfactory Feature Report (UFR). The MOD Form 765 UFR is used to notify and document subsequent actions relating to the proposed amendments to TI in the Defence Air Environment.

17. When there is a perceived Risk to personnel or equipment as a result of a TI shortfall, the organization may use a more expedient method to notify the TI sponsor; for example, by phone or by E-Mail. The process to conduct such activity ►will◄ be agreed with the TI sponsor and will be included in associated orders and the MOE where appropriate.

⁷ Including inaccurate, incomplete or ambiguous TI.

**Regulation
4810(4)**

Modification of Technical Information (MRP 145.A.45(d))

4810(4) The organization **shall** only modify TI iaw an approved procedure. For all Modifications to TI, the organization **shall** demonstrate that they result in equivalent or improved Maintenance standards and **shall** inform the Type Airworthiness Authority (TAA)⁸ and Mil CAMO or other approved organization of such changes.

**Acceptable
Means of
Compliance
4810(4)**

Modification of Technical Information (MRP 145.A.45(d))

Common AMC

18. Nil.

Additional AMC - MMOs only

19. Nil.

Additional AMC - AMOs only

20. The procedure **should** address the need for the organization to seek authority from the originating organization to deviate from relevant TI.

21. The procedure **should** include a requirement to retain a paper / electronic record of the complete process from start to finish and ensure that the relevant TI clearly identifies the Modification.

**Guidance
Material
4810(4)**

Modification of Technical Information (MRP 145.A.45(d))

22. For the purposes of this Regulation, 'relevant Technical Information' means instructions on how to carry out the particular Maintenance task; they exclude the engineering design of Repairs and Modifications.

23. Deviation from TI must be appropriately authorized⁹ ▶,10◀.

**Regulation
4810(5)**

Common Work Card or Work Sheet (MRP 145.A.45(e))

4810(5) The organization **shall** provide a common work card or work sheet system to be used throughout relevant parts of the organization, to be used as follows:

a. The organization **shall** either transcribe accurately the TI¹¹ onto such work cards or work sheets, or make precise reference to the particular Maintenance task or tasks contained in such TI.

b. Work cards and work sheets that are computer generated and held on an electronic database **shall** be subject to both adequate safeguards against unauthorized alteration and a back-up electronic database, which **shall** be updated within 24 hours of any entry made to the main electronic database.

c. Complex Maintenance tasks **shall** be transcribed onto the work cards or work sheets and subdivided into clear

⁸ Where the Air System is ▶ not UK MOD-owned, Type Airworthiness (TAW) management◀ regulatory responsibility by either the TAA or Type Airworthiness Manager (TAM) needs to be agreed within the Sponsor's approved model ▶◀; refer to RA 1162 – Air Safety Governance Arrangements for Civilian Operated (Development) and (In-Service) Air Systems, or refer to RA 1163 – Air Safety Governance Arrangements for Special Case Flying Air Systems. Dependent on the agreed delegation of TAW responsibilities TAM may be read in place of TAA as appropriate throughout this RA.

⁹ Refer to RA 4812(5): Deferred and Incomplete Maintenance (MRP 145.A.50(e)).

¹⁰ ▶ Refer to RA 4812(6): Component Concessions.◀

¹¹ Refer to RA 4810(2): Applicable Technical Information (MRP 145.A.45(b)) and RA 4810(4): Modification of Technical Information (MRP 145.A.45(d)).

**Regulation
4810(5)**

stages to ensure a record of the accomplishment of the complete Maintenance task.

d. The organization **shall** establish processes to ensure that all work cards and / or work sheets are completed in a correct and consistent manner.

**Acceptable
Means of
Compliance
4810(5)**

Common Work Card or Work Sheet (MRP 145.A.45(e))

24. Maintenance organizations **should** only record Maintenance on sponsor¹² approved forms, work cards and work sheets. Such documents **should** be completed iaw the sponsor's respective Instructions for Use and processes.

25. Work cards **should** differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing.

**Guidance
Material
4810(5)**

Common Work Card or Work Sheet (MRP 145.A.45(e))

Common GM

26. The terms 'work card' and 'work sheet' refer to the document on which a Maintenance task or scheduled sequence of tasks have been pre-populated. Examples include, but are not limited to, a Topic 5 Maintenance schedule, a MOD F707MP and an authorized pre-printed Maintenance work order.

27. In the case of a lengthy Maintenance task involving a succession of personnel completing the task, it may be necessary to use supplementary forms, work cards or work sheets to indicate what was accomplished by each individual person.

Additional GM - MMOs only

28. Nil.

Additional GM - AMOs only

29. The term 'relevant parts of the organization' is used to mean, for example, Air System Base Maintenance, Air System Line Maintenance, engine workshops, mechanical workshops, avionic workshops, etc. Therefore, for example, engine workshops will have a common system throughout such engine workshops, but this may be different to the System used in Air System Base Maintenance.

30. Where an AMO is Contracted to use the same form, work card or work sheet system as an MMO, they will comply with the same Instructions for Use and processes.

**Regulation
4810(6)**

Availability of Technical Information (MRP 145.A.45(f))

4810(6) The organization **shall** ensure that all applicable TI is readily available for use when required by Maintenance personnel.

**Acceptable
Means of
Compliance
4810(6)**

Availability of Technical Information (MRP 145.A.45(f))

31. TI **should** be available in close proximity to the Air System being maintained, for the relevant staff to study.

32. Where TI is held electronically, or on microfilm / microfiche, the number of terminals to access the data **should** be sufficient in relation to the size of the work programme to enable easy access for ► **Tradespersons, Supervisors and Coordinating / Certifying Staff.** ◀

¹² Air System and Air System equipment specific MOD Form 700 numerical series forms are sponsored by an authorized individual within a Delivery Team. The MAA sponsors all other MOD Form 700 numerical series forms.

**Guidance
Material
4810(6)****Availability of Technical Information (MRP 145.A.45(f))**

33. Nil.

**Regulation
4810(7)****Maintaining the Amendment State of Technical Information
(MRP 145.A.45(g))**

4810(7) The organization **shall** establish a procedure to ensure that the TI it controls is kept up to date. In the case of an AMO using MOD-sponsored TI, the AMO **shall** be able to show that either it has written confirmation from the MOD that all such TI is up to date, or it has work orders specifying the amendment status of the TI to be used, or it can show that it is on the MOD-sponsored TI amendment list.

**Acceptable
Means of
Compliance
4810(7)****Maintaining the Amendment State of Technical Information
(MRP 145.A.45(g))**

34. To keep data up to date, a procedure **should** be set up to monitor the amendment status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme. Alternatively, a suitable arrangement **should** be made with the relevant Mil CAMO to receive data amendments.

35. Where Electronic Technical Publications, Logistic Information Systems or microfilm / microfiche readers are used, a control procedure **should** also be in place to ensure that, where prints are produced, out of date data is not used.

**Guidance
Material
4810(7)****Maintaining the Amendment State of Technical Information
(MRP 145.A.45(g))**

36. Nil.