

RA 4813 - Maintenance Records (MRP 145.A.55)

Rationale

A record of all Maintenance activities carried out on military registered Air Systems and Air System components is required to provide an Audit trail of the work and to enable Quality Assurance, data exploitation and investigations. Without a sufficient level of Maintenance recording, the Continuing Airworthiness of an Air System could be compromised, potentially increasing Risk to Life. This RA establishes the requirement for the minimum level of work recording, record retention and the management of such records.

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4813(4): Management of Maintenance Documentation on Delivery or Transfer of an Air System

Regulation 4813(1)

Recording and Retention of Maintenance Work (MRP 145.A.55(a))

4813(1) The organization **shall** record all details of Maintenance work carried out. As a minimum, the organization **shall** retain records necessary to prove that all requirements have been met for endorsing the Certification of Air System / Component Release, including subcontractor's¹ certificates / release documents, where applicable.

Acceptable Means of Compliance 4813(1)

Recording and Retention of Maintenance Work (MRP 145.A.55(a))

Common AMC

1. Maintenance records **should** include a description of the work carried out to include the following:
 - a. Reference to any Technical Instruction (TI) that was used to aid the task (including the amendment state of the publication).
 - b. Serial number, and appropriate life recording data, of any item / component fitted / removed as part of that task.
 - c. The batch number **▶**²**◀** of Standard Parts and consumables used as part of the item / component refit or reconnection, as detailed on un-broached equipment packaging, or on acceptable accompanying documentation.
 - d. The serial number of any calibrated tools, equipment, and **▶****◀** test equipment, used **▶** *within the task.* **◀**
2. When electronic means are used to record Maintenance carried out, Electronic Signatures **should** be considered as equivalent to those made on hardcopy Maintenance documents.
3. When more than one person is detailed to work on a Maintenance task, each person **should** be identified and sign for the work they complete within that task.

¹ Approved Maintenance Organizations (AMO) may subcontract Maintenance activities to a non-MRP Part 145 organization but in doing so the subcontracted organization's facilities, personnel and procedures involved with the AMO's products undergoing Maintenance is effectively subsumed into the AMO in that it works under the contracting AMO's Quality Management System and the AMO's MRP Part 145 approval is extended to include the subcontractor. It therefore follows that those parts of the subcontractor's facilities, personnel and procedures **shall** meet MRP Part 145 requirements for the duration of that Maintenance. It remains the contracting AMO's responsibility to ensure such requirements are satisfied, as it retains accountability for all actions and outputs of the subcontracted organization in the Maintenance of the AMO's products. All subcontracted organizations **shall** be listed within the contracting AMO's Maintenance Organization Exposition (MOE).

² **▶** Batch numbers may also be referred to on documentation or packaging in other terms such as lot, run, or series numbers / references. If in doubt advice **should** be sought from the appropriate Delivery Team or vendor. **◀**

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4. Parts dismantled or components removed for access or if replaced require an appropriate record to this effect. The record **should** contain the complete nomenclature and serial number of such items and **should** refer to any associated TI³ references that describe its removal / refit / replace.

Additional AMC - Military Maintenance Organizations (MMO) only

5. MMOs **should** record details of Maintenance work using the MOD Form 700 documentation and / or electronic Information System equivalent in accordance with (iaw) the appropriate Instructions for Use and procedures.

6. All Maintenance work carried out on Air Systems and Air System equipment **should** be recorded and certified by an appropriately authorized person⁴.

7. MMOs **should** retain Maintenance records if the information they contain continues to be pertinent to the Continuing Airworthiness of an Air System. Maintenance records **should** be retained for a period determined by the form sponsor and, if relevant, in consultation with the relevant Type Airworthiness Authority (TAA)⁵.

Additional AMC - AMOs only

8. To ensure traceability to installed Air System component documentation and associated TI³, records **should** contain basic details of all serialized Air System components installed.

9. The Maintenance record **should** be either a paper or computer system or any combination of both⁶:

- a. Paper systems **should** use robust material which can withstand normal handling and filing. The record **should** remain legible throughout the required retention period.

10. AMOs **should** describe document retention and transfer procedures, as directed by the relevant TAA, within the MOE.

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Recording and Retention of Maintenance Work (MRP 145.A.55(a))

Common GM

11. Certification of Air System or Air System equipment Maintenance is required to provide a fully auditable record of the work carried out. It will identify uniquely, those responsible for the work in a manner that can be authenticated. When certifying a Maintenance record, a person is implicitly stating that they have completed or supervised the Maintenance task iaw applicable TI³, orders, Instructions for Use, procedures and processes.

12. Completed documentation that continues to be relevant in support of Airworthiness investigations will also be retained.

13. Properly executed and retained records provide information essential in controlling Corrective and Preventive Maintenance and troubleshooting to eliminate the need for re-inspection and additional work to establish Airworthiness. The prime objective is to have secure and easily retrievable records with comprehensive and legible contents.

Additional GM - MMOs only

14. To maintain Configuration Control, new forms will not be created and used within the MOD Form 700 series unless endorsed by the MAA⁷.

³ Refer to RA 4810 – Technical Information (MRP 145.A.45).

⁴ Refer to RA 4806(5): Personnel Competences and Authorization (MRP 145.A.30(e)).

⁵ 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.

⁶ Refer to RA 1223 – Airworthiness Information Management.

⁷ Refer to MAA03: MAA Regulatory Processes.

<p>Guidance Material 4813(1)</p>	<p>Additional GM - AMOs only</p> <p>15. Nil.</p>
<p>Regulation 4813(2)</p>	<p>Copies of Maintenance Records (MRP 145.A.55(b))</p> <p>4813(2) The AMO shall provide a copy of each document relating to the Certification of Air System / Component Release to the relevant Military Continuing Airworthiness Management Organization (Mil CAMO), together with a copy of any specific approved Repair / Modification instructions used for Repairs / Modifications carried out.</p>
<p>Acceptable Means of Compliance 4813(2)</p>	<p>Copies of Maintenance Records (MRP 145.A.55(b))</p> <p>16. Nil.</p>
<p>Guidance Material 4813(2)</p>	<p>Copies of Maintenance Records (MRP 145.A.55(b))</p> <p>17. Nil.</p>
<p>Regulation 4813(3)</p>	<p>Management of Retained Maintenance Records (MRP 145.A.55(c))</p> <p>4813(3) The organization shall manage retained copies of all detailed Maintenance records and any associated TI, as instructed by the MAA, such that:</p> <ol style="list-style-type: none"> a. Records under this Regulation shall be stored in a safe way with regard to fire, flood and theft. b. Computer backup discs, tapes etc shall be stored in a different location from that containing the working discs, tapes etc, in an environment that ensures they remain in good condition. c. Where a Maintenance organization terminates its operation, all retained Maintenance records shall be transferred to the relevant Mil CAMO.
<p>Acceptable Means of Compliance 4813(3)</p>	<p>Management of Retained Maintenance Records (MRP 145.A.55(c))</p> <p>Common AMC</p> <p>18. Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When such an engine is being maintained, the total time in service and Maintenance records for each module should be kept. The Maintenance records as specified should be kept with the module and show compliance with any mandatory requirements pertaining to that module.</p> <p>19. In the event that Maintenance records are lost, corrupted or inaccurate, the Mil CAMO should be consulted⁸.</p> <p>Additional AMC - MMOs only</p> <p>20. The MOD Form 700 documents should be kept in safe custody, kept free from defacement and kept legible at all times.</p> <p>21. Maintenance records can be scanned and stored electronically, but should be subject to Certification that the electronic copy is a true, legible and complete facsimile</p>

⁸ Refer to RA 4964(2): Continuing Airworthiness Records.

Acceptable Means of Compliance 4813(3)

of the original. Such electronic storage of documentation **should** meet the same requirements as those for the hard copy.

Additional AMC - AMOs only

22. Maintenance records **should** be retained until the work it records has been invalidated by documented work carried out subsequently (for example, Preventive Maintenance, Depth Maintenance, Base Maintenance or equivalent Maintenance).

23. In addition, Maintenance records for Air Systems subject to Civil Aviation Authority (CAA) oversight **should** be kept for a minimum of 3 years from the date the Air System or component to which the work relates was released from the organization.

24. Any reconstructed records **should** be submitted to the Military Continuing Airworthiness Manager (Mil CAM) for acceptance.

Guidance Material 4813(3)

Management of Retained Maintenance Records (MRP 145.A.55(c))

Common GM

25. 'Associated Technical Information' is specific information such as Repair and Modification instructions. This does not necessarily require the retention of all Technical Publications.

Additional GM - MMOs only

26. Nil.

Additional GM - AMOs only

27. The term "terminates its operation" in this Regulation is deemed to mean the ending of the contractual relationship with the MOD and thus the cessation of an AMO's Approval.

28. Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by Repair facilities and reference to records maintained by individual mechanics etc. When these things have been done and the record is still incomplete, the Mil CAM may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service.

Note:

Additional Maintenance may be required.

Regulation 4813(4)

Management of Maintenance Documentation on Delivery or Transfer of an Air System

4813(4) On delivery or transfer of any Air System the organization **shall** despatch the original copies of all relevant Maintenance documentation, forms and certificates (including MOD Form 700 series documents or equivalent agreed with the TAA) to the receiving unit.

Acceptable Means of Compliance 4813(4)

Management of Maintenance Documentation on Delivery or Transfer of an Air System

29. On delivery or transfer of any Air System all relevant current Air System documentation, forms and certificates that are required for the operation or planned agreed Maintenance of the Air System **should** be dispatched to the receiving organization.

30. All engineering documentation forms transferred **should** be listed on a transfer document completed by the organization's authorized signatory. Documentation **should** be dispatched promptly to the receiving unit without delay.

31. Documents sent by post **should** be sent by Registered Mail or a similar recorded and trackable method.

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32. When Air Systems and related Products, Parts and Appliances are transferred to a Contracted organization for Modification, Repair, major Maintenance etc, the associated forms **should** also be returned on completion of the Modification, Repair, major Maintenance etc. In the event of non-receipt of the forms the receiving organization **should** advise the despatching unit who **should** investigate and provide the necessary information.

33. Original documents **should not** be carried in the Aircraft to which they refer. RA 2201⁹ **should** be read in conjunction with this Regulation.

34. Any document bearing an original signature required to be carried on an Aircraft, including forms for the completion by the Aircrew on arrival at the destination, **should** be duplicated and a copy held at the despatching unit.

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35. Closed forms for Air Systems and related Products, Parts and Appliances ► **will** ◀ be returned to the parent Unit of the Air System on transfer (not in any circumstances on the Aircraft to which they refer) for disposal iaw Service instructions.

⁹ Refer to RA 2201 – Carriage of Maintenance Documents in UK Military Aircraft.

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