

► This RA has been substantially re-written; for clarity, no change marks are presented – please read RA in entirety ◀

RA 1310 - Air System Document Set

Rationale

Air Systems can only be operated and maintained safely if there exists a set of instructions which describes: operating procedures, operating limitations and Maintenance procedures. These publications are known collectively as the Air System Document Set (ADS). Deficiencies within the ADS may mean the Air System is no longer Safe to Operate, or being Operated Safely. This RA requires individuals and organizations to identify their responsibilities in maintaining the integrity of the ADS, throughout the life of the Air System.

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Regulation

1310(1)

The Air System Document Set

1310(1) The Type Airworthiness Authority (TAA)¹, Commodity Chief Engineer (CE)², Operating Duty Holder (ODH) / Accountable Manager (Military Flying) (AM(MF)) and Release To Service Authority (RTSA) **shall** define the scope, develop and maintain their contributions to the ADS.

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1. The ADS is a bespoke set of instructions for each Air System and its scope **should** be defined by the TAA, Commodity CE, ODH / AM(MF) and RTSA's contributions, as applicable.
2. The TAA **should** produce an ADS management plan, in consultation with the Commodity CE, ODH / AM(MF) and RTSA, which:
 - a. Defines the contributions of the TAA, Commodity CE, ODH / AM(MF) and RTSA.
 - b. Details who is authorized³ to approve and make changes to the scope and content of the ADS.
 - c. Ensures that all operating procedures, operating limitations and Maintenance instructions needed to maintain Airworthiness are developed in accordance with the Type Certification Basis⁴.
 - d. Ensures that amendments to the ADS are promulgated to relevant users in a timely manner.
 - e. Describes the processes to ensure the ADS is managed effectively throughout the Air System's complete life cycle.
 - f. Describes the processes for Validation and Verification of the ADS.

¹ Where the Air System is Civilian-Owned, ownership of regulatory responsibility by either the TAA or Type Airworthiness Manager (TAM) needs to be agreed within the Sponsor's approved model for Type Airworthiness (TAW) management; refer to RA 1162 – Air Safety Governance Arrangements for Civilian Operated (Development) and (In-Service) Air Systems. Dependent on the agreed split of TAW responsibilities TAM may be read in place of TAA as appropriate throughout this RA.

² Although a Commodity CE is not the delegated authority to amend the ADS (refer to RA 1003 – Delegation of Airworthiness Authority and Notification of Air Safety Responsibility), the TAA is critically reliant upon Commodity CE inputs in manuals to maintain Airworthiness and meet the TAA's Type Airworthiness Safety Assessment.

³ Refer to RA 1003 – Delegation of Airworthiness Authority and Notification of Air Safety Responsibility and RA 5850 – Military Design Approved Organization (MRP Part 21 Subpart J).

⁴ Refer to RA 5810 – Military Type Certificate (MRP Part 21 Subpart B).

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- g. Describes the processes for the management of Unsatisfactory Feature Reports (UFR).
3. The TAA **should**:
- Define the scope and structure of the Aircrew Publications (AP)⁵ and Instructions for Sustaining Type Airworthiness (ISTA)⁶ within a leaflet in the Orders and Instructions issued by the TAA (Topic 2(N/A/R)1)⁷.
 - Provide the ODH / AM(MF) with source material to feed into the Air Transport Operation Manuals (ATOM).
 - Provide the source material for the Release To Service (RTS) within the RTS Recommendation (RTSR)⁸.
 - Provide the source material for a Military Permit To Fly (MPTF)⁹.
 - Ensure the Statement of Operating Intent (SOI) / Statement of Operating Intent and Usage (SOIU) is published in the ADS once authorized by the Aircraft Operating Authority (AOA)¹⁰.
4. The Commodity CE **should**:
- Prepare ISTA as required by the TAA⁶ for Commodity Delivery Team provisioned Products, Parts and Appliances and Air Launched Weapons.
 - Approve Maintenance Manuals to support off-aircraft Maintenance of Products, Parts and Appliances.
 - Approve Maintenance Manuals to support off-aircraft equipment, which is required by the TAA's Type Airworthiness Safety Assessment¹¹ and the ODH / AM(MF)'s Air System Safety Case¹².
5. Where appropriate the ODH / AM(MF) in collaboration with the Joint Air Delivery Test and Evaluation Unit (JADTEU), **should** define the scope, structure and manage the ATOM.
6. Where appropriate the RTSA¹³ **should** authorize and issue an initial RTS and subsequent RTS amendments.

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7. **The ADS management plan.** In developing the ADS management plan, the following may be considered:
- Stakeholders, including the scope and nature of their responsibilities.
 - Governance, including the meetings (agenda, frequency and attendees) and review procedures that will be used periodically to assess the ADS and share the status of activities between relevant stakeholders.
 - Configuration management, detailing the processes for maintaining and updating the ADS to reflect the RTS / MPTF cleared configuration of the Air System.
 - Amendments may be made by means of a MOD Form 765 UFR, MOD Form 765X Aircrew Publications Amendment Request or equivalent.
8. **Aircrew Publications.** Aircrew Publications⁵ are the TAA approved user information on the technical details, performance and handling characteristics of an Air System. They also include the normal operating and emergency procedures.

⁵ Refer to RA 5406 – Aircrew Publications.

⁶ Refer to RA 5815 – Instructions for Sustaining Type Airworthiness.

⁷ The Topic number in brackets are legacy military references.

⁸ Refer to RA 1360 – Release To Service Recommendations Preparation and Authorization.

⁹ Where an Air System is operated under MPTF, refer to RA 5880 – Military Permit to Fly (Development) (MRP Part 21 Subpart P) or RA 1305 – Military Permit to Fly (In-Service), (Special Case Flying) and (Single Task).

¹⁰ Refer to MAA01: MAA Regulatory Policy, Chapter 3, paragraph 10.

¹¹ Refer to RA 1220 – Delivery Team Airworthiness and Safety.

¹² Refer to RA 1205 – Air System Safety Cases.

¹³ Refer to RA 1300 – Release To Service.

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9. **ISTA.** ISTA⁶ are TAA approved Instructions and combined suite of methods, inspections, processes, and procedures necessary to maintain an Air System's Type and Continuing Airworthiness and ability to deliver its operational capabilities.
10. **ATOM.** JADTEU are the subject matter experts on all air transport information. The ATOM is the suite of publications used to enable the effective delivery of air transport capability for a given Air System. It is comprised of five key parts:
- a. General information and the carriage of personnel and cargo (Topic 11A).
 - b. Tie-down schemes - planned and special loads (Topic 11B).
 - c. Carriage and despatch of parachutists and / or air-dropped loads - Parachuting of personnel and air-dropping of loads (Topic 11C).
 - d. Loading information (Topic 11D).
 - e. Underslung Load Clearance (USLC).
11. **SOI / SOIU.** The SOI is the means by which the AOA formally conveys the operating intent for a new Air System type or major mark to the TAA. The SOI is converted into an SOIU as soon as sufficient representative In-Service usage data is accumulated, no later than 3 years after In-Service Date (ISD).
12. The appropriate AOA owns and authorizes each issue of, and any amendment to, the SOI / SOIU. The AOA will advise the TAA, via the SOI / SOIU (which will state the operating parameters and conditions the Air System is operating in, or expected to operate in), about any changes to the operating parameters and conditions to enable the TAA to plan and carry out engineering activities to support the Air System's intended usage.
13. **RTS.** The RTS¹³ is the document that authorizes Service flying. It is based on the RTSR and includes the definitive limits for the Air System.

**Regulation
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Validation of the Air System Document Set

- 1310(2) The TAA, Commodity CE and ODH / AM(MF) **shall** ensure, through validation, that all the information contained within their contribution to the ADS is technically accurate.

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Validation of the Air System Document Set

14. The TAA, Commodity CE or ODH / AM(MF) **should** ensure that quality assurance processes are in place to validate that all the information contained within the ADS is technically accurate before first use.
15. The TAA, Commodity CE or ODH / AM(MF) **should** ensure that the ADS is reviewed on a regular basis to ensure its continued validity and accuracy.
16. When practical validation trials are deemed necessary, they **should** be conducted under conditions that provide reasonable assurance that the procedure can be accomplished under normal In-Service conditions.
17. Flight or safety-critical procedures **should** be validated by practical trial, except where it can be shown that such procedures have already been accomplished on identical installations, for example, civil aeroplanes / equipment adopted for Service use.
18. Descriptive material **should** be validated by means of a comparative check against design source material to ensure its accuracy.
19. At the conclusion of validation, all work delivered to the TAA or Commodity CE for acceptance **should** be accompanied by evidence that validation has been completed.

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20. Procedural material may be validated in one or more of three ways:
- a. A practical trial of the procedure.
 - b. A simulated practical trial whereby the text is taken to the material concerned and the procedure is 'talked through'.
 - c. A 'table-top' comparison with a similar procedure that has been subject to practical trial.

**Regulation
1310(3)****Verification of the Air System Document Set**

- 1310(3) The TAA, Commodity CE and ODH / AM(MF) **shall** ensure that the relevant quality checks are carried out to verify that all the information contained within their contribution to the ADS is safe in application and suitable for its intended purpose.

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21. The TAA, Commodity CE or ODH / AM(MF) **should** implement a process that satisfies themselves¹⁴, through verification, that the information contained within the validated ADS meets the user requirement, can be used for its intended purpose by operators and maintainers under normal operating conditions and is coherent with authorized limitations^{15, 16}.

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22. Nil.

¹⁴ Using operators and / or maintainers where required, or an individual akin to a User Authenticator.

¹⁵ Such as those within the RTS.

¹⁶ See the Defence Aircrew Publications Guide for further info.