NPA/25/10

Title of Proposal: 5000 Series bi-annual up-issue

RA(s) or Manual Chapter(s): RA 5406, RA 5726, RA 5805,RA 5880.

Organizations and / or business sectors affected: DE&S DTs and DOs.

RFC Serial No: MAA/RFC/2024/179, 2024/190, 2024/205, 2024/278, 2024/288, 2024/381

MAA Author

Post	Name	Rank	Signature
DSA-MAA-Reg-Eng-5000	Redacted	Redacted	Redacted - Original Signed

MAA Supervisor

Post	Name	Rank	Signature
DSA-MAA-Reg-Eng	Redacted	Redacted	Redacted - Original Signed

MAA Independent

Post	Name	Rank	Signature
DSA-MAA-Reg-Eng-1000	Redacted	Redacted	Redacted - Original Signed

MAA LegAd (if required)

Post	Name	Rank	Signature
N/A	N/A	N/A	N/A

Cross-references to Other Documents or Relevant Sources

Other MRP Amendments: N/A

Service Inquiry Recommendations: N/A

AAIB Recommendations: N/A

Other Investigation Recommendations: N/A

Any Other Document: N/A

Feedback Notes for the Regulated Community

The Regulated Community are invited to offer feedback about the proposed amendment in the following areas:

- Air or Flight Safety impact
- Operational impact
- Errors or omissions
- Timescale for implementation
- Cost of implementation
- Amendment to internal processes/orders
- Resourcing the outcome of change

- (Contract amendments because of the change)

The format for feedback is available within a single Excel Template file on both internal and external MAA websites; it is important to use this format to ensure that your responses are considered and answered correctly.

Summary of Proposed Amendment

Objective: Enhance clarity and update terminology.

Changes made:
RA 5406 : Para 3.c reworded to enhance clarity wrt EPPA / EFB. Para 12 (now para 17) deleted. New footnote 5. Paragraph numbering changed throughout.
RA 5726 : New para 8 (ISAA definition). New para 24. New paras 60 and 61. Some minor typographical updates. Para numbering changed from para 8.
RA 5805 : New para 4 clarifying Type Certified items. Para numbering changed from para 4.
RA 5880 : New paras 16 & 24 providing clarity wrt ALW. Para numbering changed from para 16.

Impact Assessment: Minor

Consultation Period Ends: 30 April 2025

The consultation period for this proposed amendment ends on the stated date. Please send your feedback, using the Response Form, via email to DSA-MAA-MRPEnquiries@mod.gov.uk

MAA Approval

Post	Name	Rank	Signature
DSA-MAA-OpAssure-Eng-DepHd	Redacted	Redacted	Redacted - Original Signed

RA 5406 – Aircrew Publications

Rationale

Aircrew Publications are a subset of the Air System Document Set (ADS)[1] that provide Aircrew with information on the technical details, performance and handling characteristics of an Air System, together with normal and emergency operating procedures and limitations, in an accessible format at the point of need. Failure to create and maintain Aircrew Publications will result in the Aircrew being unable to ensure that the associated Air System is operated safely. To maintain safe operation, Aircrew Publications need to be amended through-life in a coherent and expedient manner so that they continue to reflect the Release To Service (RTS)[2] or Military Permit To Fly (MPTF)[3] cleared configuration of the Air System.

Contents

Regulation 5406(1)

Aircrew Publications

5406(1) The Type Airworthiness Authority (TAA)[4] **shall** approve and provide a complete set of Aircrew Publications to the Operating Duty Holder (ODH) / Accountable Manager (Military Flying) (AM(MF)).

Acceptable Means of Compliance 5406(1)

Aircrew Publications

1. The TAA **should** develop Aircrew Publications in accordance with (iaw) the requirements of the ADS management plan[1] ►◄.

2. All related Aircrew Publications ►**should** be◄ issued before the Air System is required to commence In-Service flying.

3. ►Aircrew Publications **should**◄ provide the following as a minimum (but not limited to):

   a. Normal and emergency drills in a format suited to use by the Aircrew in the operating environment.

   b. Detailed system descriptions including installed avionics, weapons equipment and associated software, Air System operating instructions, handling advice and expanded normal and emergency procedures.

   c. Sufficient performance information to permit effective flight planning calculations, enabling adherence to civilian Regulation where applicable, suitable to the Air System role, and supportive of mission management decision making. ►This **should** be provided via an Electronic Performance Planning Aid (EPPA) unless the stakeholder community is agreed that an EPPA is not required[5].◄

4. If the need is identified, the following ►**should** also be◄ provided:

   a. A Maintenance procedure suitable for use by the Air System crew iaw their engineering authorizations.

   b. A method of determining the Air System suitability for dispatch or continuance on task.

   c. Procedures to confirm the performance, mission effectiveness or handling qualities of an Air System or to perform diagnostic analysis of its Systems.

[1] Refer to RA 1310 – Air System Document Set.
[2] Refer to RA 1300 – Release To Service.
[3] 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).
[4] 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. Dependant on the agreed delegation of TAw responsibilities TAM may be read in place of TAA as appropriate throughout this RA.
[5] ►Refer to AAP 00-002 – Defence Aircrew Publications Guide (DAPG) for specialist advice regarding the development, production and assessment of EPPA, including those installed on Electronic Flight Bags.◄

Acceptable Means of Compliance 5406(1)

5. Officer Commanding Defence Aircrew Publications Squadron (OC DAPS)[6] and / or a competent contractor[7] ►**should** be◄ appointed to support the TAA in:

a. Ensuring the timely and effective management of the production, validation, verification and maintenance of Aircrew Publications[1].

b. Liaising where necessary with an Operating Data Manual (ODM) Agency[8] to ensure the provenance of performance data by independent scrutiny of the Performance Data Substantiation Document (PDSD), and to maintain consistency and coherence of the ODM with the RTS, MPTF and other Aircrew Publications.

6. OC DAPS or a competent contractor ►**should**◄ provide independent Assurance and advice on the acceptability of the Aircrew Publications, iaw Air Acquisition Publication (AAP) 00-002 Defence Aircrew Publications Guide (DAPG) and DAPS Business Processes, as an integral element of the Type Air Safety Assessment (TASA) or Project Safety Assessment[9].

7. OC DAPS or a competent contractor **should** be:

a. The Subject Matter Expert (SME) for Aircrew Publications and provides the independent Assurance and advice on the acceptability of Aircrew Publications.

b. Responsible for providing independent Air System performance advice to the TAA and ODH / AM(MF).

8. The TAA **should** ensure that OC DAPS or a competent contractor is undertaking the management of production, independent assessment and publication activities for Aircrew Publications, leading to the provision of the information required to support the RTS and MPTF.

9. When DAPS is used to manage the production of Aircrew Publications, the preferred layout and technical content **should** follow that detailed in AAP 00-001[10]. Otherwise the format of new material **should** follow that detailed in Defence Standard 00-601 Part 1[11]. In either case, the TAA **should** ensure that the source data is valid or has been validated, and that the content and presentation are verified by the User Authenticator (UA)[12] as fit for purpose.

10. The ODH / AM(MF) **should**:

a. Ensure that the implications of any changes to the RTS and MPTF are evaluated, and that timely action is taken to amend appropriate orders or provide guidance and information to staff under their command.

b. Appoint a UA, typically the Standardization / Evaluation office for each Air System. The UA **should** provide verification to OC DAPS or competent contractor and the RTSA that the content and presentation of the Aircrew Publications meet user requirements. However, the advice in the Aircrew Publications **should** reflect what is authorized by the RTS.

11. The Design Organization (DO) **should**:

a. Provide the TAA with all the information required to ensure that Aircrew Publications reflect the Type Certification Basis of the Air System.

b. Maintain the master source material (recommended to the TAA, including all graphics) throughout the life of the Air System and make this material available ‘on demand’ to the MOD.

c. Generate appropriate text on the ‘Effect on Operation and Handling’ when an effect on operation and / or handling is identified.

[6] OC DAPS will be issued with terms of reference by the Delegated Release to service Authority (DRTSA) RAF, and counter-signed by DRTSA (RN) and DRTSA (Army).
[7] Refer to RA 1005 – Contracting with Competent Organizations.
[8] Refer to AAP 00-002 - Defence Aircrew Publications Guide (DAPG) for definition of an ODM Agency.
[9] Refer to RA 5011 – Type Airworthiness Safety Management System and RA 5012 - Type Airworthiness Safety Assessment.
[10] Refer to AAP 00-001 – Defence Aircrew Documentation Specifications.
[11] Refer to Defence Standard 00-601 Part 1 – MOD Business Rules – Contracting for Technical Documentation.
[12] Refer to MAA02: MAA Master Glossary.

Acceptable Means of Compliance 5406(1)

d. Produce a PDSD to support all performance data provided for the Aircrew Publications. The PDSD describes how the Air System performance data are derived and validated. The PDSD **should** be updated as required to support changes to the provided data.

Guidance Material 5406(1)

Aircrew Publications

12. The ODH / AM(MF) may require the TAA to provide operators with information in addition to that listed at paragraph 1. This information will be presented within the Air System's Aircrew Publications.

13. Operating data will be provided to the Normal Operating Standard as a minimum. Details of normal, reduced and military operating standards can be found in AAP 00-002[8].

Air Systems procured with existing civilian or foreign Aircrew Publications

14. The TAA may use Aircrew Publications sourced from civilian or foreign sources that allow the ADS requirement to be satisfied, subject to assessment and Assurance by the OC DAPS or a competent contractor. There will be a reasoned 'evidence-based' argument as to why such publications are suitable for use in the Defence Air Environment and how they will be kept up-to-date with the UK military registered Configuration through the life of the Air System.

Advance Warning of Changes

15. Aircrew Manuals (AMs) and Flight Reference Cards (FRCs) may contain advance warning notices of changes such as Advance Information Leaflets or Advance Notification of Amendments; nevertheless, users need to be aware that these publications may not fully reflect the latest limitations or procedures due to the following:

a. **RTS Limitations**. If limitations are quoted in advanced warning notices of change to the AMs, ODM and FRCs they will be based directly upon those contained in the RTS.

b. **Security Classified Limitations**. Information graded higher than OFFICIAL SENSITIVE are not included in the standard RTS, AMs or FRCs; they may be published in classified supplements.

UA

16. The UA's tasks will include:

a. As Air System SME, maintaining a close working relationship with DAPS and / or the DO.

b. Acting as the focal point in providing advice from the operators' perspective.

c. Specifying the content of Pilot Notes.

d. Verifying the fitness for purpose of Aircrew Publications.

e. Co-ordinating proposals from operating units, consideration by the TAA and for taking immediate action if warranted by the urgency of the proposed change.

►◄

17. ►◄

Regulation 5406(2)

Amendments to Aircrew Publications

5406(2) The TAA **shall** ensure that the Aircrew Publications are maintained in coherence with the RTS or MPTF (as applicable) cleared configuration through the life of the Air System.

Acceptable Means of Compliance 5406(2)

Amendments to Aircrew Publications

18. The TAA **should** amend Aircrew Publications through-life iaw the requirements of the ADS management plan[1], ensuring that changes to the design of the Air System affecting Aircrew are promulgated to the DRTSA via RTS Recommendations.

19. For changes to the Air System configuration that are likely to affect Aircrew Publications (especially important for software changes) and the RTS, ►the TAA **should** identify those responsible for providing all relevant data associated with such changes to OC DAPS or a competent contractor and arrange for any required amendment of the related Aircrew Publications.◄

a. ►◄

b. ►◄

20. OC DAPS or a competent contractor **should** determine whether handling, performance or operation is affected and, when tasked, recommend appropriate amendments to the Aircrew Publications, to the TAA.

21. In the case of changes to Type Design or in-service design changes and Special Instructions (Technical) (SI(T)s), the TAA **should** request advice from OC DAPS, UA or a competent contractor to advise whether an entry in the Air System Technical Log[13] is required and provide the wording for such entries.

Guidance Material 5406(2)

Amendments to Aircrew Publications

22. Duty Holder-Facing organizations all have a responsibility to ensure that the ramifications of changes to the Aircrew Publications are notified to staff in a timely fashion, if necessary, by the prompt issue of warnings or orders, and in all cases followed up by the timely amendment of the appropriate publications. It is essential that amendments to Aircrew Publications are developed in the same timescale as the issue of changes to the RTS.

23. For each Air System, the TAA and RTSA will agree their responsibilities for ensuring that amendments to all Aircrew Publications in the ADS are made in a timely fashion to reflect changes to the Air System design, the RTS, and Maintenance policy statements. Where the change to the Air System affects both the Aircrew and ground crew it is crucial that both sets of orders, or amendments to publications, are promulgated simultaneously.

24. The TAA and RTSA will ensure that all changes likely to affect the Aircrew Publications are supported by a TASA / Project Safety Assessment change report that clearly carries forward the ramifications of the change to all relevant parts of the Aircrew Publications. Where appropriate this will include the requirement for the DO to amend the Air System performance data for further consideration by an ODM agency on behalf of the TAA.

25. Most changes to the Aircrew Publications during an Air System's In-Service life result from changes to Type Design, In-Service design changes or SI(T)s. For all changes, the TAA will require the DO to provide OC DAPS with validated information and procedures. To ensure that the operating information available to Aircrew reflects the RTS cleared configuration, it is vital that both the TAA and RTSA keep the OC DAPS fully informed as to the nature of changes. When the source of change to the Aircrew Publications is In-Service experience, and the TAA and RTSA have agreed that it does not require a change to the RTS or ODM, OC DAPS or a competent contractor may initiate the change. In this case OC DAPS will seek validation of the change from the DO, through the Delivery Team, if practicable.

[13] MOD Form 703A1 – List of Modifications and Service Issued Instructions of Direct Operating Interest to Aircrew, MOD Form 703A2 – List of Frequently Moved Modifications and Service Issued Instructions of Direct Operating Interest to Aircrew, or equivalent.

RA 5726 – Integrity Management

Rationale

The technical and organizational uncertainties associated with military aviation contribute to a complex range of Hazards that may compromise Air System Integrity. A comprehensive, through-life, Integrity Management (IM) approach enables these potential Airworthiness threats to be managed. Whilst support from various stakeholders is needed for effective IM, the overall responsibility is assigned to the Type Airworthiness Authority's (TAA)[1]. This Regulatory Article (RA) details these TAA IM responsibilities and will be read in conjunction with the Manual of Air System Integrity Management (MASIM)[2].

Contents

Definitions

Definitions Relevant to this RA

1. **Integrity**. The ability of an Air System to retain its design intended properties and function throughout its service life when maintained and operated in accordance with (iaw) the Air System Document Set (ADS).

2. **Integrity Baseline**. The artefacts that define the Design Organization's (DO) contribution to the ADS for an Integrity discipline. In a Claim-Argument-Evidence approach, the Integrity Baseline (the 'Claim') is underpinned by Integrity Assertions (the 'Argument') of the Integrity Evidence (the 'Evidence'). Integrity Baselines are established prior to entry of the Air System to service and are updated through-life.

3. **Integrity Assertions**. Declarations made in the Integrity Baseline that a feature of the design has Integrity. The Integrity Assertions within the Integrity Baseline (the 'Claim) are the outcome of an assessment (the 'Argument') of the Integrity Evidence (the 'Evidence').

4. **Integrity Evidence**. The design and Certification products that underpin the Integrity Assertions stated explicitly / implicitly in the Integrity Baseline. In the first instance Integrity Evidence is produced to support the Air System entering service and may be based upon design assumptions and / or service operating intent. When in-service, the Integrity Evidence is continuously updated according to analysis of Service Data. It is captured in an Integrity Evidence record.

5. **Service Data**. The information relating to the usage, condition, failures or loads experienced by an Air System that, when collected and analyzed, needs to be tested against the Integrity Evidence to support the Integrity Baseline.

6. **IM Systems**. The IM programmes, tools and processes, established by the TAA, that are necessary to assure the Integrity of the Air System. These Systems capture and assess Service Data to better understand the usage of the Air System, the failures of systems, and / or the loads that it experiences. Programmes are established to better understand the condition of the Air System.

7. **Independent Airworthiness Advisor (IAA)**. An IAA is a competent individual, independent of the DO, who provides independent Air System technical advice to the

[1] 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. Dependant on the agreed delegation of TAw responsibilities TAM may be read in place of TAA as appropriate throughout this RA.
[2] Refer to the Manual of Air System Integrity Management (MASIM).

Definitions

TAA[3]. To be considered a Suitably Qualified and Experienced Person (SQEP), they will be a Chartered Engineer, and have a minimum of 5 years' experience in Air System design, Safety Assessment, IM or Maintenance; relevant to both the Air System type and the specialization for which advice will be given.

8. ►**Independent Structural Airworthiness Advisor (ISAA)**. An ISAA is a competent individual, independent of the DO, who acts as the specialist Independent Airworthiness Advisor to the TAA regarding Aircraft Structures and Structural Integrity Management.◄

Regulation 5726(1)

Integrity Management

5726(1) The TAA **shall** be responsible for IM, for all Air System types within their Area of Responsibility, to maintain Integrity.

Acceptable Means of Compliance 5726(1)

Integrity Management

9. As a key enabler of the Air System Safety Case[4], the TAA **should** ensure an IM programme is in place prior to the Air System In-Service Date (ISD) and is maintained throughout the life of the Air System.

10. The Establish-Sustain-Validate-Recover-Exploit management framework **should** be used to confirm the Integrity Assertions to provide confidence in the Integrity Baseline and counter threats to Integrity identified by evolving Integrity Evidence.

11. The TAA **should** consider the most effective and efficient strategy for managing IM activities. As a minimum, consideration **should** be given to the need for separate activities for the three most commonly used Integrity disciplines (Structural, Systems and Propulsion), including Integrity Working Groups (IWG). The overall approach **should** be recorded in the Air System Integrity Strategy Document (AISD).

12. Where threats to Integrity are identified, they **should** be managed, and continually reviewed in response to In-Service developments and service data.

13. All those with responsibilities which impact on, or which contribute to Integrity **should** identify to the TAA at the earliest opportunity any decision, activity or change in circumstances that has the potential to pose a threat to Integrity.

14. Delivery Team (DT) personnel with specific Integrity responsibilities **should** be identified by the TAA and attend the appropriate Integrity course[5].

15. IM for Remotely Piloted Air Systems **should** be iaw ►the Remotely Piloted Air System Manual (RPASM)◄[6].

Guidance Material 5726(1)

Integrity Management

16. For guidance on all aspects of IM, refer to the MASIM[2].

Regulation 5726(2)

Establishing Integrity Management

5726(2) The TAA **shall** establish IM to demonstrate that the Air System is airworthy to operate through all conditions detailed in the Release To Service (RTS), Military Permit To Fly (MPTF) (In-Service) or MPTF (Special Case Flying) and reflect the usage set out in the Statement of Operating Intent (SOI).

[3] The IAA is not to be confused with the Independent Technical Evaluator or Independent Safety Auditor.
[4] Refer to RA 1205 – Air System Safety Cases.
[5] For further training details see RA 1440 – Air Safety Training.
[6] Refer to ►RPASM◄.

Acceptable Means of Compliance 5726(2)

Establishing Integrity Management

Integrity Governance

17. The TAA **should** establish an IM Strategy that is:

a. Communicated to stakeholders through the AISD prior to Full Business Case Approval of the project.

b. Managed through an IM Plan (IMP) initiated prior to ISD.

c. Implemented through a 6-monthly IWG initiated prior to the ISD.

d. Implemented with defined boundaries and interfaces between various IM disciplines.

e. Implemented with defined mechanisms for reporting on the status of Integrity of the Air System within Defence Equipment & Support and to the Aviation Duty Holder (ADH) / Accountable Manager (Military Flying) (AM(MF)).

18. The AISD **should** be owned by the TAA and endorsed on first release and following any significant amendment.

19. The IWG **should** be chaired by the TAA or a holder of a delegated Letter of Airworthiness Authority (LoAA) that refers specifically to the role of IWG Chair, who is at least OF4 (or equivalent).

20. The IWG Chair **should** ensure that the IWG comprises a quorum of SQEP stakeholders (identified below), and additional stakeholders as necessary.

a. DO / Coordinating DO.

b. DT[7] member(s) responsible for IM.

c. Service provider / Support contractor (if applicable).

d. Continuing Airworthiness Management Organization (CAMO) member responsible for IM.

e. Civil Aviation Authority for military registered Aircraft subject to civil oversight[8].

f. DT Safety Manager.

g. IAA(s) with the requisite SQEP[9].

h. Release To Service Authority or Sponsor representative.

i. MAA **should** be invited ►◄ although the MAA **should not** form part of the quorate SQEP stakeholders list.

Integrity Evidence and Baseline

21. The TAA **should** identify the Integrity Baseline, including the underpinning Integrity Evidence and Integrity Assertions.

22. The SOI (AP101X-XXXX-15S or equivalent) **should** be owned and authorized by the ADH or AM(MF) and **should** include requirements for all relevant disciplines, to be published in the ADS no later than the issue of the Type Certification Basis[10]. The TAA and ADH or AM(MF) **should** ensure that an SOI for all new Air System types and significant Marks, is developed in consultation with, and formally conveyed to, the Air System DO. In turn, the Air System DO **should** communicate this information to the Type Certified Product DOs (ie Propulsion System DO).

23. Where an Air System is operated, or intended to be operated, by multiple Operating Duty Holders (ODH) / AM(MF), the SOI **should** be owned and authorized

[7] Where the term DT or Commodity DT is used in this RA, this may include the TAM and organizations supporting the TAM where appropriate.
[8] Refer to RA 1165 – UK Civil Aviation Authority Oversight of UK Military Registered Aircraft.
[9] Recognizing the long-standing requirement for the Independent Structural Airworthiness Advisor (ISAA) role to support IM, an experienced ISAA may be regarded as SQEP in pan-discipline IM matters from a regulatory compliance perspective, but an IAA in the required field **should** address specific issues in disciplines other than structures where the TAA requires that SQEP.
[10] Refer to RA 5810 – Military Type Certificate (MRP Part 21 Subpart B).

Acceptable Means of Compliance 5726(2)

by the lead end-user ADH or AM(MF) and **should** encompass the full scope of activities to be conducted by all ODH / AM(MF).

24. ►The TAA **should**, in consultation with the DO, ensure that baseline loads and usage spectrum, obtained during design substantiation and Certification of the Air System, is available as part of the Integrity Baseline. The baseline spectrum **should** include the intended usage and associated loads developed in the design of the Air System and be representative of the intended usage the Air System will encounter In-Service.◄

25. The TAA **should** ensure that all critical or significant items[2], eg Structural Significant Items or Functionally Significant Items, have appropriate associated Maintenance activities derived by suitable methodology, in consultation with the DO, as part of the Integrity Baseline.

26. The TAA **should** authorize the component lives (Critical and Non-Critical) and, where applicable exchange rates identified by the DO, and promulgate these in AP101X-XXXX-5A1 or equivalent Maintenance schedule.

27. The TAA **should** ensure that Commodity DT Chief Engineers (DT CE) establish the lifing details and Continuing Airworthiness requirements of components for which they are responsible and present their Integrity Evidence and Integrity Assertions to the TAA for final authorization.

IM Systems

28. The TAA, in consultation with the DO, **should** identify any IM Systems requirements necessary to assure the Integrity of the Air System.

29. The TAA **should** establish:

a. Health monitoring and usage monitoring systems and ensure that thresholds for acceptable capture rate of usage data are defined, to enable inspection and replacement of components to be scheduled with adequate confidence.

b. A system to capture usage against sortie profiles throughout the life of the Air System and a means to quantify unmonitored sorties.

c. An approach to validate the usage data through engagement with the DO during the design and introduction to service of the Air System.

d. In consultation with the DO, an exceedance monitoring system in order to capture events that may be a threat to the Integrity of the Air System.

e. An Air System Fault Reporting, Analysis and Corrective Action System.

f. A Configuration Status Record (CSR)[11] for the Air System ►◄.

30. ►The CSR **should** detail the Configuration of each Air System Type Design and its components in sufficient detail to maintain Configuration Control (CC) and to support Integrity decisions.◄

31. The TAA **should** ensure that IM programmes, or the capability to conduct them, are in place in order to understand the condition of the Air System In-Service. The nature of these programmes of activity are likely to be particular to an Integrity discipline.

32. The TAA **should** agree with the CAMO and DO stakeholder, access to, and the means of providing, Service Data from the Forward and Depth domains.

33. The TAA **should** define limits for investigation / urgent action on any data loss from monitoring systems and implement a process to monitor and react. Limits may differ depending on the complexity, reliability and criticality of the monitoring system.

34. The TAA **should** ensure that an Environmental Damage (ED) Prevention and Control (EDPC) programme, including measures to manage the Risk to Airworthiness arising from ED, is established in cooperation with the DO.

[11] Refer to RA 5301 – Air System Configuration Management.

Acceptable Means of Compliance 5726(2)

35. The TAA **should** ensure IM is supported by an Examination Programme (EP), established prior to the ISD, which **should** include:

a. Classification of significant items as either At Risk (AR) or Not at Risk (NAR) from Accidental Damage (AD) or ED.

b. Scheduled examinations based on this classification, and examination and retirement of components according to their fatigue clearances or component lives.

c. A Sampling Programme (SP), for components not normally inspected during scheduled examinations, which includes any requirements for teardown[12] to inform the Maintenance schedule.

d. An inspection of all critical or significant items, iaw the Preventive Maintenance and EP / SP programmes, before the fleet leader reaches 80% of its original design life (or revised life, if less).

36. The TAA or Commodity DT Leader (DTL) **should** ensure appropriate arrangements are in place for the SP with the DO. The DO **should**:

a. Notify the TAA or Commodity DT CE of the date, time and location scheduled for the tests and / or strip examination of SP materiel subject to fault action.

b. Submit a report to the TAA or Commodity DTL, covering the following points:

(1) The deterioration in performance and / or the degree of wear which has occurred.

(2) The recommended future service life for this type of item and whether further sampling is required.

(3) Those features of design which limit life extension and whether Modification action is feasible and economic.

37. The TAA **should** ensure, where appropriate, that experience and data from other operators of the same Air System type, or Air Systems in similar roles, is used to inform the IM of their Air System.

Guidance Material 5726(2)

Establishing Integrity Management

38. For guidance refer to the MASIM[2].

Regulation 5726(3)

Sustaining Integrity Management

5726(3) The TAA **shall** ensure that IM is sustained, and In-Service Data used, to continuously monitor and counter threats to Integrity.

Acceptable Means of Compliance 5726(3)

Sustaining Integrity Management

Integrity Governance

39. The TAA **should** review and monitor outputs from the IM Systems and report key issues to the IWG.

40. The AISD and the IMP **should** be reviewed by all stakeholders prior to every IWG and both **should** be ratified by the quorate members of the IWG.

41. The TAA **should** identify any unmitigated or unquantified Airworthiness Risks, associated with IM which have been accepted by the relevant IWG, and raise them to the ►Type Airworthiness Safety Panel◄ and / or the Air System Safety Working Group.

[12] Refer to Military Aircraft Structures Airworthiness Advisory Group (MASAAG) Paper 105 Guidance and Best Practice for Teardown Inspections.

Acceptable Means of Compliance 5726(3)

Integrity Evidence and Baseline

42. All changes to component lives, Maintenance thresholds or intervals **should** be:

a. Supported by a Risk Assessment.

b. Conveyed to the IWG and reviewed periodically.

c. Considered within the Type Airworthiness Safety Assessment.

d. Authorized by personnel with the appropriate delegated authority supported by independent assessment as required.

43. Stakeholders **should** report any significant changes in usage or operation to the IWG.

IM Systems

44. The TAA **should**:

a. Ensure that IM systems created in the Establishing phase are implemented correctly and periodically reviewed, with significant findings, including data loss, unmonitored sorties and CC issues, reported to the IWG.

b. Maintain IM systems in an effective condition in order to maximize the capture, use and monitoring of Service Data by the CAMO, the DT and the IWG, respectively.

c. Ensure that lost usage data is restored if possible; if not, a technical assessment of the loss **should** be carried out. The TAA / TAM **should** ensure that procedures, or appropriate fill-in rates for lost usage data, are in place and applied as required.

d. Ensure that the Air System Airworthiness Information[13] reflects the 'as flown' Configuration is maintained for the life of the Air System and is populated with all relevant arisings that have the potential to impact Integrity.

e. Ensure that any IM Programmes created in the Establishing phase are implemented correctly and periodically reviewed, and a summary of the results reported to each IWG.

Guidance Material 5726(3)

Sustaining Integrity Management

45. For guidance refer to the MASIM[2].

Regulation 5726(4)

Validating Integrity

5726(4) The TAA **shall** ensure that Integrity Evidence, Assertions and Baseline are periodically validated.

Acceptable Means of Compliance 5726(4)

Validating Integrity

Integrity Governance

46. The TAA **should** use the IWG to validate the Integrity Baseline against the most up to date Service Data and analysis available.

47. The TAA **should** ensure that the validity of the Integrity Baseline is confirmed on completion of the IWG.

Integrity Evidence, Assertions and Baseline

48. The Integrity Evidence and Baseline **should** be reviewed and updated, with the support of the DO, in response to findings occasioned by validating activities.

49. The TAA **should** ensure that cleared life is reviewed in response to changes to fleet planning assumptions.

50. The TAA **should** ensure that component lifing, recording processes and metrics, are periodically reviewed.

[13] Refer to RA 1223 – Airworthiness Information Management.

Acceptable Means of Compliance 5726(4)

51. The TAA **should** ensure that the Maintenance schedule[14] is reviewed at least every 5 years.

IM Systems

52. The TAA, with the assistance of the Military Continuing Airworthiness Manager and DO, **should** review and validate Maintenance processes.

53. The TAA **should** support the ADH or AM(MF) to ensure that the first usage data validation (conversion of the SOI into an SOI and Usage (SOIU)), which forms the baseline for comparison against future validation data, is undertaken once usage is considered to be stable or no later than 3 years after ISD. The ADH or AM(MF) **should** authorize the amendment to each issue of SOIU.

54. The TAA **should** support the ADH or AM(MF) review of the SOI / SOIU and make the results available to the IWG. These reviews **should** be undertaken by the ADH or AM(MF) as follows:

a. A basic annual review by the appropriate ADH or AM(MF), to confirm that the SOI or SOIU (as appropriate) remains an accurate record.

b. A detailed qualitative and quantitative triennial review is conducted using Aircrew interviews, data obtained via the Aircraft log, on-board Systems and / or instrumented flights to confirm future intent and validate usage against the Design Usage Spectrum (DUS) assumptions.

c. Establishing the 'so what' to anticipated changes.

d. The review confirms that the expected and validated usage is within the RTS, MPTF (In-Service) or MPTF (Special Case Flying) limits.

55. Following SOI / SOIU reviews:

a. The TAA **should** task DO support to determine the effect of any SOI / SOIU changes on the Integrity Baseline and their recommended operating limitations and Maintenance instructions.

b. The TAA **should** retain an Audit trail of all changes made to any of their TAw limitations, instructions or arrangements as a result of the SOI / SOIU review iaw current Regulations[15].

c. The ADH or AM(MF) **should** make Aircrew familiar with the changes that have been made to sortie profile codes within the SOI / SOIU and the need for both accurate recording and efficacy of reporting of any changes in usage.

56. The ADH or AM(MF) **should** ensure that the SOI / SOIU (AP101X-XXXX-15S or equivalent) is updated in the ADS.

57. The TAA **should** ensure that results from the EP (including scheduled examinations, and where necessary, the SP and teardown[12] and forensic examination) are collated, reviewed and subjected to trend analysis to inform Maintenance Schedule Reviews, update the IWG on the efficacy of the EP and permit the DO to update lifing predictions.

58. The TAA **should** verify the ability of a system or component to: retain its function within defined limits, function without undue frequency of failure and function without adverse effect on other Systems or components.

59. The TAA **should** ensure that where a Safety-critical system relies upon measurement of a parameter (such as temperature or pressure) this system **should** have an appropriate calibration policy and procedure defined in the ADS.

60. ►A programme for validation of the baseline loads and usage spectrum **should** be conducted through engagement with the DO. A system to validate the loads and usage spectrum **should** be developed from service flight data to:

a. Obtain operational loads and usage data that can be used to update or confirm the baseline DUS,

[14] Refer to RA 5320 – Air System Maintenance Schedule – Design and Validation.
[15] Refer to RA 1225 – Air Safety Documentation Audit Trail.

Acceptable Means of Compliance 5726(4)

b. Identify usage changes that necessitate re-evaluation of the Integrity Baseline evidence,

c. Provide the data needed to establish or update fatigue clearances and support any Life Extension Programmes.

61. Each Individual Aircraft Tracking (IAT) system **should** obtain sufficient data to validate the design loads and usage by means of a Structural Health Monitoring System, Health and Usage Monitoring System or similar system accepted by the DO. Where an IAT system does not deliver sufficient data, or requires its own validation programme, then an Operational Loads Measurement / Operational Data Recording **should** be conducted on a representative sample of In-Service Air Systems.◄

62. The TAA **should** ensure the timing of usage validation programmes is being determined by its aims. The requirement to carry out the validation **should** be reviewed at least every 6 years by the TAA (concurrently with a triennial SOIU review) with the decision and rationale supported by evidence and documented in the AISD.

63. The usage validation programme **should** be considered following any Major Change in usage or rate of life consumption or in conjunction with any plans for a Major Type Design change, significant change in usage or life extension, ie where re-validation of significant parameters is necessary, decisions on usage data validation requirements **should** be documented in the AISD.

64. The TAA **should** initiate an Ageing Air System Audit[16].

Guidance Material 5726(4)

Validating Integrity

65. For guidance refer to the MASIM[2].

Regulation 5726(5)

Recovering Integrity

5726(5) The TAA **shall** ensure that any loss or potential compromise of Integrity is recovered.

Acceptable Means of Compliance 5726(5)

Recovering Integrity

Integrity Governance

66. The TAA **should** treat a loss or potential compromise of Integrity as an Airworthiness Issue and act to recover Integrity.

67. Any recommendations at an IWG to amend inspection intervals **should** be ratified by the LoAA holder prior to incorporation in the Maintenance schedule.

Integrity Evidence, Assertions and Baseline

68. The TAA **should** ensure that IM Systems are established and implemented where the Integrity Evidence and Assertions no longer supports the Integrity Baseline.

69. The TAA **should** ensure that the need for measures to conserve life is considered where life may be insufficient to reach the planned Out of Service Date.

70. The TAA **should** consider the need for design change, Reconditioning or component replacement to mitigate fatigue damage in order to meet fleet planning objectives.

71. The TAA **should** ensure that repairs are:

a. Developed by an approved DO.

b. Assessed against the appropriate Design Standard, with lifing and inspection requirements clearly established, and consideration given to the effect of adjacent and / or previous Repairs.

c. Recorded in the Air System Airworthiness Information[13].

72. Remedial action **should** be taken, and the IWG notified, if significant deviation in individual Air System weight and balance is identified by the CAMO.

[16] Refer to RA 5723 – Ageing Air System Audit.

Guidance Material 5726(5)

Recovering Integrity

73. For guidance refer to the MASIM[2].

Regulation 5726(6)

Exploiting Integrity

5726(6) The TAA **shall** ensure that Integrity is exploited to make best use of the inherent capabilities of the Air System.

Acceptable Means of Compliance 5726(6)

Exploiting Integrity

74. The TAA **should** ensure activities are put in place to record, report and, if required, act where the Service Data and analysis suggests there may be an opportunity to relax requirements within the Integrity Baseline without introducing new threats to Integrity.

75. Any recommendations at an IWG to relax requirements within the Integrity Baseline **should** be ratified by the LoAA holder prior to incorporation in the Maintenance schedule.

Guidance Material 5726(6)

Exploiting Integrity

76. For guidance refer to the MASIM[2].

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RA 5805 – Airworthiness Directives and Service Bulletins (MRP Part 21 Subpart A)

Rationale

Airworthiness Directives (AD) and Service Bulletins (SB) are used to promulgate information such as unsafe conditions and Maintenance or product improvement information for civil derived[1] Air Systems. Failure to take appropriate action in response to an AD or SB may impact the Airworthiness of the Air System. Type Airworthiness Authorities (TAA)[2] for civil derived[1] Air Systems need to ensure such ADs and SBs are reviewed and appropriate action is taken as required to maintain the Airworthiness of the Air System.

Contents

Regulation 5805(1)

Airworthiness Directives and Service Bulletins (MRP Part 21.A.3B)

5805(1) Following the issue of an AD or SB on a civil derived Air System, the TAA **shall** review the relevance and take appropriate action[3].

Acceptable Means of Compliance 5805(1)

Airworthiness Directives and Service Bulletins (MRP Part 21.A.3B)

1. When an AD or SB has been received by the TAA, they **should** decide the appropriate corrective action and / or required inspections to be carried out within the timescale detailed in the AD or SB[4].

2. If the TAA defers or rejects an AD or SB regarding an unsafe condition, that is applicable to the operated Air System, they **should** seek Approval from the relevant Defence Equipment and Support Operating Centre Director[5] or Sponsor[6] and ensure that the appropriate Aviation Duty Holder / Accountable Manager (Military Flying) is aware so that any impact on Risk to Life can be considered.

Guidance Material 5805(1)

Airworthiness Directives and Service Bulletins (MRP Part 21.A.3B)

3. Promulgation of the required corrective action and / or inspection will be via an SI(T)[7] or Modification Leaflet[8] as applicable.

4. ►An AD or SB may be issued against any civil derived Type Certified item. In the civil environment, three Products are Type Certified:

   a. Air System.

   b. Engine.

   c. Propeller.◄

[1] Refer to RA 5810 – Military Type Certificate (MRP Part 21 Subpart B) – Where the Military Type Certificate is based on a Type Certificate issued by civil regulator (such as European Union Aviation Space Agency (EASA)).
[2] 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. Dependant on the agreed delegation of TAw Responsibilities TAM may be read in place of TAA as appropriate throughout this Regulatory Article (RA), noting that a TAM may not approve Special Instruction (Technical) (SI(T))s.
[3] Refer to RA 1165 – UK Civil Aviation Authority Oversight of UK Military Registered Aircraft.
[4] Iaw Para 4e of RA 5815 – Instructions for Sustaining Type Airworthiness - Military Design Organizations (DOs) can determine how they issue Instructions for Sustaining Type Airworthiness and this can include ADs / SBs. This RA is specifically for civil-derived Air Systems where the Civil Aviation Authority / Federal Aviation Administration (FAA) issue an AD / SB that needs to be considered for applicability to the Air System.
[5] Refer to RA 1013 – Air Systems Operating Centre Director – Provision of Airworthy and Safe Systems.
[6] Refer to RA 1163 – Air Safety Governance Arrangements for Special Case Flying Air Systems.
[7] Refer to RA 5405 – Special Instructions (Technical).
[8] Refer to RA 5305 – In Service Design Changes.

Guidance Material 5805(1)

Airworthiness Directives

5. An AD is a document issued by a recognized civil authority (such as the EASA or the FAA) which mandates the actions to be performed on an Air System to restore an acceptable level of Safety[9], when evidence shows that the Safety level of the Air System may otherwise be compromised.

6. An AD will contain at least the following information:

a. Identification of any unsafe condition(s).

b. Identification of the affected Air System operating and Maintenance associated documentation.

c. The action(s) required.

d. The compliance time / cycles for the required action(s).

e. The date of ►applicability.◄

Service Bulletins

7. It is common practice among civil DO to request actions to improve the Safety level of their Product, Part or Appliance by means of a SB. An SB may or may not result in the introduction of a design change. The use of a SB will provide the recipient with information or advance instruction for corrective action.

8. SBs issued by a DO do not carry a mandatory requirement for action, unless covered by an AD. It is good practice to review all SBs within the requirements of the DO.

[9] Refer to RA 1230 – Design Safety Targets.

RA 5880 – Military Permit to Fly (Development) (MRP Part 21 Subpart P)

Rationale

A Military Permit to Fly (MPTF) (Development) is required for all Air Systems operating in the Development and Special Case Flying categories of the Defence Air Environment (DAE) Operating Categories[1] where no extant Release To Service (RTS) or MPTF (In-Service)[2] or MPTF (Special Case Flying) exists, and the Air System is capable of safe flight under defined conditions. It is important to clearly define the design and flight conditions approved under an MPTF (Development), without these conditions, there is a Risk that the safe operation of the Air System may be reduced with the potential for an Accident or Incident. This RA defines the rules governing the production of an MPTF (Development) and the obligations of the MPTF (Development) applicant.

Contents

Definitions

Definitions Relevant to this RA

1. **MPTF (Development).** The MPTF (Development) is designed to enable Test and Evaluation (T&E)[3] activity prior to the Air System being In-Service, or when the Air System is undergoing design change or upgrade which requires the Air System to be evaluated or assessed in order to generate evidence in support of the Air System Safety Case[4]. The MPTF will be applicable to Air Systems operating in the Military Operated (Development) and Civilian Operated (Development) and Special Case Flying Operating Categories[1].

2. **Operator.** The term Operator can be read as Aviation Duty Holder (ADH) or Accountable Manager (Military Flying).

[1] Refer to RA 1160 – The Defence Air Environment Operating Framework.
[2] Refer to RA 1305 – Military Permit to Fly (In-Service), (Special Case Flying) and (Single Task).
[3] Refer to RA 2370 – Test and Evaluation.
[4] Refer to RA 1205 – Air System Safety Cases.

Regulation 5880(1)

Military Permit to Fly (Development)

5880(1) An MPTF (Development) **shall** be required for all Air Systems operating within the DAE for developmental purposes, where there is not a valid RTS or MPTF (In-Service) or MPTF (Special Case Flying) in place, or the operation is outside the flight conditions permitted by an extant RTS or MPTF (In-Service) or MPTF (Special Case Flying).

Acceptable Means of Compliance 5880(1)

Military Permit to Fly (Development)

3. For Civilian-Owned and Civilian Operated Air Systems the Air System Sponsor[5] has the opportunity to delegate Type Airworthiness (TAw) responsibility, with regards to MPTF (Development), between the Type Airworthiness Authority (TAA) and a Type Airworthiness Manager (TAM)[6], noting that a TAM[7] **should not** approve the initial issue of MPTF (Development) for Civilian Operated (Development) Air Systems.

Guidance Material 5880(1)

Military Permit to Fly (Development)

4. In some circumstances it may be preferable to conduct Development activity within the flight limitations detailed in the RTS, MPTF (In-Service) or MPTF (Special Case Flying), rather than use an MPTF (Development). This may necessitate an amendment to the RTS, MPTF (In-Service) or MPTF (Special Case Flying), or the creation of a Special Clearance[8] in the RTS or MPTF (In Service), to allow alternative flight conditions.

Regulation 5880(2)

Military Permit to Fly (Development) Procedure (MRP Part 21.A.707)

5880(2) An MPTF (Development) applicant **shall** supply all the required supporting evidence to the TAA, or an appropriately privileged Design Organization (DO) for review, prior to the issue of an MPTF (Development).

Acceptable Means of Compliance 5880(2)

Military Permit to Fly (Development) Procedure (MRP Part 21.A.707)

Procedure

5. The MPTF (Development) **should** state the Definition, Airworthiness, Safety and Limitations of the Air System to be flown. An application for an MPTF (Development) **should** be in the format available on the MAA websites.

6. In support of the request for an MPTF (Development), the applicant **should** submit a signed Declaration of Compliance (DofC) to the TAA or privileged DO. The DofC **should** include evidence that the Air System has been inspected and tested, as required, to determine that it is airworthy and that no features or characteristics make it unsafe for its intended use. The content of a DofC is defined in the Military Permit to Fly – Declaration of Compliance Form[9].

7. For a new Air System or Major Change in Type Design[10], the DofC **should** be supported by a valid Certificate of Design (CofD)[11].

[5] Refer to RA 1019 – Sponsor of Military Registered Civilian-Owned and Civilian Operated Air Systems - Air Safety Responsibilities.
[6] Where the Air System is not UK MOD-owned, TAw management regulatory responsibility by either the TAA or 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. Dependant on the agreed delegation of TAw responsibilities TAM may be read in place of TAA as appropriate throughout this RA.
[7] For Open Category Remotely Piloted Air Systems (RPAS), where there is no TAA / TAM, the RPAS Responsible Officer / RPAS Accountable Manager fulfils the RA 5880 TAA / TAM role.
[8] Refer to ►RA 1300 – Release To Service.◄
[9] The Military Permit to Fly – Declaration of Compliance Form is available on the MAA website.
[10] Refer to RA 5820 – Changes in Type Design (MRP Part 21 Subpart D).
[11] Refer to RA 5103 – Certificate of Design.

Acceptable Means of Compliance 5880(2)

8. The Product, Part, Appliance, Airborne Equipment or Air Launched Weapon (ALW) on trial **should** have a valid CofD[11].

9. Where the applicant and the authorizer are the same entity then there **should** be an independent check to verify the supplied evidence. Evidence of the independent check **should** be recorded and available for review ►by the MAA on request.◄

10. The TAA or the privileged DO **should** ensure that the nominated Operator is endorsed to conduct the proposed T&E flying[3].

11. The terms of the DO approval[12] and Contractor Flying Organization approval[13] **should** include the type of Air System for which an MPTF (Development) is being sought.

Flight trials of Non-Production Standard Propulsion Systems

12. Where the MPTF (Development) is required for flight trials of a Non-Production Standard Propulsion System, including a new design type, or unapproved changes, the Propulsion System DO **should** demonstrate in their Safety Assessment, that sufficient testing and analysis has been completed to establish the conditions for safe flight and confidence that an in-flight Hazard is unlikely to occur, for Non-Production Standard Propulsion System Flight Clearance[14].

13. The establishment of flight conditions **should** be defined by the Propulsion System DO and provided to the Air System DO; in this context, Propulsion System DO acts as a supplier of the Air System DO.

14. These conditions **should** be established and substantiated under an arrangement between the Propulsion System DO and the Air System DO. However, the Air System DO **should** take responsibility for the establishment and substantiation of the flight conditions for the Air System, including its engine(s).

15. On completion of the Non-Production Standard Propulsion System Flight Clearance, and prior to commencing flight, taxiing or ground running trials, the Propulsion System DO **should** submit a Flight Clearance Note[15] to the MPTF (Development) applicant for subsequent countersignature by the TAA or the privileged DO. This document **should** be attached to the CofD and **should** detail the operating limitations. The submission **should** be supported by a statement to define the configuration.

Flight trials of ALW

16. ►Where the MPTF (Development) is required for an Air System to conduct T&E activity on ALW, the DofC **should** be supported by an interim ALW Release (ALWR) which has sufficient detail to support an effective Safety Assessment for the intended trials[16].◄

17. Where the MPTF (Development) is required for an Air System to evaluate an armament store or ALW system the applicant **should**:

a. Provide evidence, in the DofC submitted in support of the MPTF (Development), or any amendment thereto, that the airborne armament store or ALW DO has provided a CofD with respect to any carriage, firing, launch / release or jettison limitations.

b. Demonstrate compliance with RA 1350(2)[16].

MPTF (Development) Signatures

18. The applicant **should** declare that the submitted information is complete and accurate by signing the applicant section of the MPTF (Development) statement.

19. The Air System DO's approved signatory[12], or approved signatory of the DO appointed as an integrator by the TAA[17], **should** declare, by signing the DO section of

[12] Refer to RA 5850 – Military Design Approved Organization (MRP Part 21 Subpart J).
[13] Where applicable refer to RA 2501 – Contractor Flying Approved Organization Scheme.
[14] Refer to Def-Stan 00-970 – Certification Standard for Service Aircraft.
[15] The Flight Clearance Note is available on the MAA website.
[16] Refer to RA 1350(2): Air Launched Weapons not requiring an Air Launched Weapon Release Certificate.
[17] Refer to RA 1005 – Contracting with Competent Organizations.

Acceptable Means of Compliance 5880(2)

the MPTF (Development) statement, that the supporting evidence has been reviewed and that the Air System is airworthy for the intended use.

20. The Operator **should** declare they are able to conduct the defined flight trials and will comply with all flight conditions, by signing the MPTF (Development) statement.

21. In signing the MPTF (Development) the TAA or privileged DO **should** approve the flight conditions and declare acceptance of the activity for which the applicant has requested the MPTF (Development).

22. The MPTF (Development) **should** be signed in accordance with (iaw) this procedure before the first flight of the proposed flying programme can commence, including taxiing, or ground running trials.

Guidance Material 5880(2)

Military Permit to Fly (Development) Procedure (MRP Part 21.A.707)

23. The applicant is the organization requiring the trial to be conducted.

24. ►T&E of ALW may be conducted to generate further ALWR evidence, or to assess ALW performance for development of the required flight clearance. The interim ALWR will need to be at a level of maturity that supports the required Risk Assessment for the trials plan that will feed the Safety Assessment. Where evidence gaps in the ALWR present potential Risk to Life (RtL) that cannot be mitigated by trial design or flight limitations, these will be clearly identified for acceptance by the ADH or AM(MF).◄

25. An MPTF (Development) may be specific to an individual Air System or multiple Air Systems of the same design configuration, identified upon the permit by the Military Registration Number(s).

26. When there is no change to the Type Design for the flight trial, the original DofC may be used in support of the MPTF (Development).

27. On receipt of the request the TAA or privileged DO will review the evidence supplied and once satisfied the MPTF (Development) will be signed by the TAA or the privileged DO.

28. The MPTF (Development) approves the Air System to be released to a competent Operator to fly. The final decision to fly rests with the ADH or AM(MF) once they have satisfied themselves that the RtL is As Low As Reasonably Practicable (ALARP) and Tolerable.

29. Following an Occurrence, the applicant, TAA or privileged DO may revoke the MPTF (Development). The person responsible for the revocation will advise all other involved parties including the Air System Operator and the Government Quality Assurance Representative.

Regulation 5880(3)

Flight Conditions (MRP Part 21.A.708)

5880(3) The conditions for safe flight **shall** be determined by the TAA or the privileged DO.

Acceptable Means of Compliance 5880(3)

Flight Conditions (MRP Part 21.A.708)

30. The flight conditions specified in the DofC which forms part of the MPTF (Development) **should** be determined on the principles set out in the Certification Specification applicable to the Air System design.

31. The determination of flight conditions **should** include:

a. The conditions or restrictions put on itineraries, operating bases or airspace required for the flight(s).

b. The conditions and restrictions put on the Aircrew to fly the Air System.

c. The restrictions regarding carriage of persons other than Aircrew.

Acceptable Means of Compliance 5880(3)

d. The operating limitations, specific procedures or technical conditions to be met (which may include the restrictions regarding carriage / release / firing of ALW).

e. The specific flight test programme.

f. The specific Continuing Airworthiness arrangements and the governance under which they will be performed.

32. The flight conditions **should** take into account the qualifications and competence of the Air System Aircrew and flight test engineers as appropriate.

33. If at any time after an MPTF (Development) has been issued, the applicant becomes aware of evidence that necessitates a restriction on existing limitations, the applicant **should** immediately advise the TAA or the privileged DO.

34. Where the restriction may affect other Operators of similar type Air Systems, the applicant **should** inform the relevant TAA.

Guidance Material 5880(3)

Flight Conditions (MRP Part 21.A.708)

Safe flight

35. Safe flight normally means continued safe flight and landing but in some limited cases (eg higher Risk flight testing) it can mean that the Air System is able to fly in a manner that will primarily ensure the Safety of over-flown third parties, the Aircrew and, if applicable other occupants.

36. This definition of “safe flight” is not to be interpreted as allowing a test pilot, equipped with a parachute and operating over a sparsely populated area, to set out on a test flight in the full knowledge that there is a high probability of losing the Air System.

37. The applicant will take reasonable care to minimize Safety Risks and to be satisfied that there is a reasonable probability that the Air System will complete the flight without damage or injury to the Air System and its occupants or to other property or persons whether in the air or on the ground.

Substantiation

38. The substantiation that the Air System is capable of safe flight under the specified conditions or limitations will detail the analysis, calculations, tests or other means used to determine the conditions or limitations.

Control of Air System configuration

39. The applicant will establish a method for the control of any change or Repair made to the Air System, but which do not invalidate the conditions established for the MPTF (Development).

40. All other changes must be approved iaw RA 5880(6).

Regulation 5880(4)

Approval of Flight Conditions (MRP Part 21.A.710)

5880(4) The flight conditions **shall** be approved by the TAA or where applicable, the privileged DO.

Acceptable Means of Compliance 5880(4)

Approval of Flight Conditions (MRP Part 21.A.710)

41. The TAA or the privileged DO **should** be satisfied that the Air System is capable of safe flight under the specified conditions and limitations.

42. The appropriate ADH or AM(MF) **should** satisfy themselves that the RtL of the proposed flying activity is ALARP and Tolerable.

Guidance Material 5880(4)

Approval of Flight Conditions (MRP Part 21.A.710)

43. The TAA or the privileged DO may require the applicant to make any necessary inspections or tests for the purpose of satisfying themselves that the Air System is capable of safe flight under the specified conditions and limitations.

Regulation 5880(5)

Issue of a Military Permit to Fly (Development) (MRP Part 21.A.711)

5880(5) The MPTF (Development) **shall** be issued to the applicant by the TAA[6] or where applicable, the privileged DO.

►◄

Acceptable Means of Compliance 5880(5)

Issue of a Military Permit to Fly (Development) (MRP Part 21.A.711)

44. The MPTF (Development) **should** specify the purpose(s) and any conditions and limitations approved under RA 5880(4).

45. All evidence supporting the application **should** be reviewed prior to issue of the MPTF (Development).

46. The initial issue of the MPTF (Development) **should** be approved by the TAA (or their approved representative); a privileged DO may issue subsequent versions of MPTF (Development)[18].

47. The TAA or the privileged DO issuing the MPTF (Development) **should** revoke the permit if there is evidence that any of the conditions specified in RA 5880(9) are not met.

Guidance Material 5880(5)

Issue of a Military Permit to Fly (Development) (MRP Part 21.A.711)

48. When the MPTF (Development) has been issued, the applicant becomes the holder of the MPTF (Development).

Regulation 5880(6)

Changes (MRP Part 21.A.713)

5880(6) Any change that invalidates the flight conditions or associated substantiation established for the MPTF (Development) **shall** be approved by the TAA or the privileged DO.

Acceptable Means of Compliance 5880(6)

Changes (MRP Part 21.A.713)

49. The applicant **should** apply to the TAA or the privileged DO for a new or amended MPTF (Development) when there are changes to the evidence contained in the DofC relating to: limitations, Airworthiness, Safety or configuration.

50. If changes to the data attached to the MPTF (Development) are required, the change to the MPTF (Development) **should** be approved and issued by the TAA or the privileged DO[19].

Guidance Material 5880(6)

Changes (MRP Part 21.A.713)

51. Changes to the conditions or associated substantiations that are approved but do not affect the text on the MPTF (Development) do not require a new MPTF (Development) to be issued.

52. In case a new application is necessary, the substantiation for approval of the flight conditions only needs to address the change.

Regulation 5880(7)

Transferability (MRP Part 21.A.719)

5880(7) An MPTF (Development) **shall not** be transferable.

Acceptable Means of Compliance 5880(7)

Transferability (MRP Part 21.A.719)

53. If there is a proposed change of holder, ownership and / or a change of register a new application **should** be submitted iaw RA 5880(2).

[18] Refer to RA 5850(11): Privileges (MRP Part 21.A.263).
[19] MPTF Amendment Statement is available on the MAA websites.

Guidance Material 5880(7)	**Transferability (MRP Part 21.A.719)** 54. Nil.
Regulation 5880(8)	**Inspections (MRP Part 21.A.721)** 5880(8) The holder of, or applicant for, an MPTF (Development) **shall** provide access to the Air Systems concerned at the request of the TAA or the privileged DO.
Acceptable Means of Compliance 5880(8)	**Inspections (MRP Part 21.A.721)** 55. Nil.
Guidance Material 5880(8)	**Inspections (MRP Part 21.A.721)** 56. Nil.
Regulation 5880(9)	**Validity of Approval (MRP Part 21.A.723)** 5880(9) An MPTF (Development) **shall** remain valid for a stated period.
Acceptable Means of Compliance 5880(9)	**Validity of Approval (MRP Part 21.A.723)** 57. The MPTF (Development) **should** continue to be valid for the stated period providing the Air System remains in compliance with the specific conditions and limitations of RA 5880, the MPTF (Development) has not been suspended or revoked, and the Air System remains on the UK Military Aircraft Register. 58. Upon suspension or revocation, the MPTF (Development) **should** be marked in such a way that it cannot be re-used.
Guidance Material 5880(9)	**Validity of Approval (MRP Part 21.A.723)** 59. Nil.
Regulation 5880(10)	**Renewal of Military Permit to Fly (Development) (MRP Part 21.A.725)** 5880(10) A renewal of the MPTF (Development) **shall** be approved by the TAA or the privileged DO.
Acceptable Means of Compliance 5880(10)	**Renewal of Military Permit to Fly (Development) (MRP Part 21.A.725)** 60. The renewal of the MPTF (Development) **should** be processed as a change iaw RA 5880(6).
Guidance Material 5880(10)	**Renewal of Military Permit to Fly (Development) (MRP Part 21.A.725)** 61. Nil.

Regulation 5880(11)

Obligations of the Holder of a Military Permit to Fly (Development) (MRP Part 21.A.727)

5880(11) The holder of an MPTF (Development) **shall** ensure that all the conditions and limitations associated with the permit are satisfied, maintained and provided to the Operator.

Acceptable Means of Compliance 5880(11)

Obligations of the Holder of a Military Permit to Fly (Development) (MRP Part 21.A.727)

62. Following signature by the TAA or the privileged DO, the MPTF (Development) document and any amendments and revisions thereto, **should** be returned to the holder of the MPTF (Development).

63. The holder of the MPTF (Development) **should** distribute copies of the MPTF (Development) and any amendments and revisions thereto to the Air System Operators and other agencies involved in the conduct of the associated flight testing of the Air System as required.

Guidance Material 5880(11)

Obligations of the Holder of a Military Permit to Fly (Development) (MRP Part 21.A.727)

64. Nil.

Regulation 5880(12)

Record Keeping (MRP Part 21.A.729)

5880(12) All documents produced to establish and justify the flight conditions **shall** be held by the applicant or holder of the MPTF (Development), as appropriate, at the disposal of the TAA or the privileged DO, in order to provide the information necessary to ensure the continued Airworthiness of the Air System.

Acceptable Means of Compliance 5880(12)

Record Keeping (MRP Part 21.A.729)

65. A historical record of the original MPTF (Development) and subsequent amendments, and the substantiations determined in the application of the MPTF (Development) **should** be held[20] in order to provide the information necessary to ensure the continued Airworthiness of the Air System.

Guidance Material 5880(12)

Record Keeping (MRP Part 21.A.729)

66. Nil.

[20] Refer to RA 1225 – Air Safety Documentation Audit Trail.