

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 Categories¹ 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.

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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 Case⁴. The MPTF will be applicable to Air Systems operating in the Military Operated (Development) and Civilian Operated (Development) and Special Case Flying Operating Categories¹.
2. **Operator.** The term Operator can be read as Aviation Duty Holder (ADH) or Accountable Manager (Military Flying) (AM(MF)).

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).

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3. For Civilian-Owned and Civilian Operated Air Systems the Air System Sponsor⁵ 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 TAM⁷ **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 Clearance⁸ 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 Form⁹.

7. For a new Air System or Major Change in Type Design¹⁰, 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.

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5880(2)**

8. The Product, Part, Appliance, Airborne Equipment or Air Launched Weapon (ALW) on trial **should** have a valid CofD¹¹.
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 flying³.
11. The terms of the DO approval¹² and Contractor Flying Organization approval¹³ **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 Clearance¹⁴.
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 Note¹⁵ 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 trials¹⁶.** ◀
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 signatory¹², or approved signatory of the DO appointed as an integrator by the TAA¹⁷, **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 1028** ◀ – 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 ► **– Air Launched Weapon Release.** ◀

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.

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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.

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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.

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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.

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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 TAA⁶ or where applicable, the privileged DO.


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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.

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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 DO¹⁹.

**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.

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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.

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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
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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 held²⁰ 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.